ADULT ENVIRONMENTAL EDUCATION:
A COMMUNITY PSYCHOLOGY PERSPECTIVE

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Abstract

Environmental education (EE) research has identified factors affecting people's environmental understanding and personal behaviours. However, it has been criticized for its largely individualistic, apolitical focus on school children. The present research used an action research (AR) approach to develop and test a model of community adult EE drawn from empowerment theory and practice, and health promotion in particular. Participants in two locations in Melbourne, Australia, engaged in skills training in peer leadership, grassroots group development, advocacy, and AR. Using adult education methods of guided discussion and peer interaction, participants were encouraged to establish and lead a group around an issue of personal and local concern, with the researcher acting as consultant. Empowerment-oriented activities and outcomes were documented.

Empowered outcomes were evident at the psychological, organizational, and community levels of analysis. These included increased rates of self-advocacy, enhanced self-efficacy and leadership skills, the formation of a grassroots group to advocate on urban heritage issues, and the extension of the role of a migrant resource centre to become a conduit for environmental complaints, thereby strengthening its community and political links. As a result of their involvement, participants engaged in a range of empowering activities, such as networking, conducting surveys, liaising with media, and organizing public meetings.

The research identified that the adult EE program, and the AR methodology used, was instrumental in fostering personal and collective environmental advocacy and empowerment. The research also highlighted the important sponsoring role in promoting environmental advocacy played by empowering community organizations with members of high local standing. Thirdly, the effort to protect urban heritage and amenity was recognized as a direct environmental issue. An EE incorporating environmental psychology principles could enhance residents' understanding about the meaning and sense of community they derive from their relationship with their urban environment, and inform their advocacy efforts.

DEDICATION

To the residents of the Cities of Port Phillip
and Hobson's Bay who participated in this research

To all those who shared their expertise, perspectives and advice

To my family, friends and fellow research students,
who gave unconditional support

To Adrian – who encouraged me to take the road less travelled,
guided me through all terrain, and admired the view with me

et

Surtout à toi, Alain – tu m'as aidé à écrire chaque mot. Merci toujours.

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CHAPTER 1

INTRODUCTION

In the inaugural edition of the Journal of Environmental Education, Stapp et al. (1969) defined environmental education (EE) as "...aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these problems, and motivated to work towards their solution" (p. 31). A more recent definition by Bell, Baum, Fisher, and Greene (1990) described EE as "making people aware of the scope and nature of environmental problems and of behavioral alternatives that might alleviate them" (p. 475). With environmental awareness and concern currently widespread among people in both industrialized and developing nations (ANOP Research Services, 1993; Dunlap, Gallup & Gallup, 1993), it might be suggested that environmental educators have had some success. However, environmental concern has yet to be matched by a pervasive, corresponding shift in behaviour (Chawla, 1988; Finger, 1994).

Statement of Problem

Despite 30 years of environmental education research, only a small proportion of people are actively involved in environmental action, leading many environmental educators to conclude that the discipline is not achieving its purpose (e.g., Gigliotti, 1990; Hungerford & Volk, 1990; Robottom & Hart, 1995). EE research has had success in highlighting factors which affect people's awareness and concern, and influence them to make individual lifestyle adjustments, e.g., by

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recycling (Chance, 1991; Geller, Winett & Everett, 1982, Hines, Hungerford & Tomera, 1986/87; Ishaq, 1991; Leeming, Dwyer, Porter, & Cobern, 1993; Nevin, 1991; Sia, Hungerford, & Tomera, 1985/86; Skinner, 1991).

An extensive body of research documents ways of enhancing children's environmental understanding and behaviour (Hungerford & Volk, 1990). However, these successes do not address the need for deeper, political levels of environmental action and legislative change that can only be brought about by the collective involvement and empowerment of adults (Clover, 1995; Fien, 1993; Robottom & Hart, 1993, 1995). As declared by the National Institute of Adult Continuing Education (England and Wales): "We cannot wait for the present generation of school and college students to begin applying their newly-won environmental awareness – we must educate those who are making vital decisions now" (1993, p. 11).

As an indicator of the inherent conservatism of most formal EE research, discussions of empowerment have been largely individualistic and apolitical. For example, Hungerford and Volk (1990) stressed the crucial role of 'empowerment variables' in fostering 'environmental citizenship behaviour', but confounding the construct with self-esteem, self-efficacy, competency and locus of control. There is a need for EE research to embrace empowerment as a construct that not only conveys a psychological sense of control, but is also concerned with democratic participation, political power and the rights of individuals, groups and communities (Kieffer, 1984; Perkins & Zimmerman, 1995; Rappaport, 1987; Zimmerman, 1995; Zimmerman & Rappaport, 1988).

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Another limitation of EE has been its focus on the 'natural', or 'non-human' environment. With the world's human population increasingly living in urban environments (Schaefer, 1992), there is a need for EE to help people deal with their immediate urban environmental concerns. Such a starting point also respects the principles of adult education, which documents the need to engage adults in a socially critical reflection of their own life experience (Brookfield, 1986; Foley, 1995b; Freire, 1970; Knowles, 1985; Mezirow, 1991).

The Need for Adult Education Perspectives

Like the notion of empowerment, to which it is often linked (e.g., Brookfield, 1986; Foley, 1995b; Freire, 1970; Rennie, 1990), education is a term which can be defined to suit a variety of social and political goals (Fien, 1993; Robottom & Hart, 1993, 1995). The main objective of state-run school education tends to be to ensure cultural replication (Foley, 1995a; Newman, 1995). However, in a modern society immersed in rapid change, education is needed not only to pass on traditional values, existing culture and world view, but also to initiate social change by encouraging people to be creative and to participate in social critique (Ottaway, 1962). Ottaway argued that within a democracy, these two seemingly contradictory functions of education can actually be reconciled within the same overarching goal: to foster understanding of the workings of democratic society and respect for its traditional core values. This is, firstly, because democracy promotes freedom of thought and expression, and encourages social critique and social change. Secondly, democratic culture includes the belief that the democratic system itself is open to review and

improvement. Thirdly, in a healthy democracy, the social forces pushing for change would be tempered by public consent and government scrutiny.

In contrast to traditional school education, the facilitation of adult learning has been described as assisting people "...to make sense of and act upon the personal, social, occupational and political environment in which they live" (Brookfield, 1986, p. vii). Much adult learning focuses on resolution of moral issues; the development of self-awareness; world-view exploration; and personal ethical development (Paterson, 1970). Brookfield argued that for education to serve as a fully liberating, empowering experience, adults need to be able to re-establish "the severed connection between individual biography and social structures" (p. 7). He stated that adult education should explore the assumptions behind the acquisition of any skills acquired during training, consider alternative purposes for the acquisition of these skills, and place their acquisition firmly in a social context. At its best, community adult education can resist and act against the world view that rejects education as an end in itself, and can strengthen and promote participation and sense of community (Mason & Randell, 1995).

Participation

Participation has been defined as "a process in which people take part in decision-making in the institutions, programs and environments that affect them" (Heller, Price, Reinhartz, Riger, & Wandersman, 1984, p. 339). Berkowitz (1996) argued that civic participation is not only fundamental to individual people's psychological well-being, but for the ongoing sustainability of a community. In other words, participation is essential for citizens to maintain a sense of community: "a feeling ... of belonging, a feeling that members matter to one another and to the

group, and a shared faith that members' needs will be met through their commitment to be together" (McMillan & Chavis, 1986, p. 9). In complex, technological societies, local community networks have declined due to transience and anonymity. Access to "appropriate social structures for collective action" has become increasingly difficult (Heller, 1989, p. 5). Berkowitz argued that if mediating structures are developed to encourage participation, and if people are asked to do so, then over time they will. Furthermore, by forming links with others, people can build socially and politically empowering networks.

Rennie (1990) highlighted the potential for adult education to contribute to civil society. He noted that participation is often discussed in conjunction with the notion of citizenship. Traditional views of citizenship often conceive of citizens' rights as bestowed from a ruling elite onto a passive populace, and to be used privately, in order to ensure social cohesion (Turner, 1992). Yet Rennie argued that citizenship ought to transcend traditional conceptions, such as mere 'arid' knowledge of government process, the act of serving on community club management committees or other public office. Turner stated that these one dimensional notions of citizenship ignore the possibility of citizenship being propagated from grass-roots efforts and struggles to gain some measure of control over resources or political debate, and contribute to democratic social change.

The call for education to promote democratic, civic participation is by no means a recent phenomenon (e.g., Dewey, 1916/1966). Yet it is considered that EE research has yet to foster such a creative, active, empowered citizenry. Despite the prominent historical role of conservation groups in educating the public and encouraging their participation, they have done so largely without the involvement of

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adult educators (Jansen, 1995). Jansen noted that during recent years, many once-radical organizations have expanded into large institutions, leaving some activists feeling alienated from the process. Environmental groups have also lost some of their momentum as long-serving leaders have retired (Toyne, 1998). Toyne added that 'green fatigue' has set in among a population increasingly alienated by politicians' entrenched discounting of public opinion, evidenced by their continued reluctance to place environmental restoration on a par with economic development. As a result of these changes, much EE run by conservation groups is currently preaching to the converted: "white, educated well-to-do believers repeatedly receive the same message, numbing their interest and cultivating a sense of futility" (Jansen, 1995, p. 93). He argued that community adult education would be more likely than mainstream EE to reach an economically and culturally diverse range of people, including the disenfranchised people "who are often pollution's victims" (p. 93).

According to Jansen (1995), adult education perspectives could be used to increase public awareness, encourage community participation and, in particular, facilitate the development of volunteer and peer leadership. He argued that peer leadership would heighten an EE program's credibility within the community; improve its flexibility in responding to community needs; enhance communication within the group, and between the group and the community; contribute to power sharing within environmental groups and within the community; and enhance groups' effectiveness.

The Example of Health Promotion

In a manner reminiscent of developments in EE, health promotion emerged as a distinct health education paradigm after previous medical ('expert') and psychosocial (attitudinal) education models failed to engender systemic behavioural change. People's behaviour around health issues are acknowledged as being significantly affected by social, economic and environmental factors, which are often outside people's personal or collective control. The paradigm attempts to address the root causes of public health problems through individual and community empowerment (Ewles & Simmett, 1992). Health promotion embraces peer education, advocacy and grass-roots empowerment. An opportunity exists to integrate these empowering models of adult education, peer leadership and advocacy into EE.

Peer Education

Peer education is based on the premise that people are more likely to learn about the ways an issue affects them, and change their attitudes and behaviours, when they consider that the message is being delivered by a peer – that is, a person of similar background and sharing the same social concerns and life pressures (Sloane & Zimmer, 1993). Creative adult peer education models have achieved positive behavioural, cultural, political and social change amongst members of subcultures and at-risk populations by ensuring that the education programs have been developed and conducted by community members. For example, innovative HIV peer education programs have produced widespread changes in behaviour and sub-cultural norms; raised community awareness; and have often led to significant changes in public policy (Butterworth, 1988; Flowers, Miller, Smith, & Booraem, 1994; Miller, Booraem, Flowers, & Iversen, 1990).

Cross-Cultural Issues

Nested within the suburban areas of western industrial cities may be neighbourhoods dominated by subcultures of ethic migrant or indigenous communities, or other minorities such as gay and lesbian people. Historically, much community organizing around gay issues and gay men's health were the province of middle class Anglo men, using existing peer networks within this advantaged population (Sadownick, 1996). Despite this, HIV education efforts came to acknowledge the ethnic diversity within the target population (e.g., Flowers et al., 1991), and the need to target gay and bisexual men who did not feel part of the mainstream gay community (Parnell, 1989). Parnell identified the opportunity to develop appropriate methods for engaging people on the fringes of subcultures, "perhaps through 'action research' projects which link trial education programs with careful evaluation" (p. 37). HIV peer education strategies were subsequently developed to reach out to specific minority communities, for example gay Asian men in Melbourne, Australia (Victorian AIDS Council, 1999), drug users within the indigenous Australian population (Crofts & Herkt, 1995), and street addicts in Chicago (Levy, Gallmeier, & Wiebel, 1995). A similar opportunity exists to explore the implementation of peer education approaches to adult EE, with particular attention given to the manner in which peer interaction and leadership manifests across various ethnic and cultural communities.

Organizational Sponsorship

Some of the more successful peer education programs targeting members of minority populations have been initiated by community leaders themselves, using the resources of the community organizations they have established (Butterworth, 1988).

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Other peer education programs have been established by professionals for a specially targeted minority population, often with limited political power, as in the case of peer education program established for young people around issues such as smoking and other health issues (e.g., St. Pierre et al., 1983). The power differential between professional and young people in the latter case has produced varying degrees of success (Maclean, 1993). Maclean argued that professionally controlled peer education programs often stymied young people's efforts to explore empowerment through any meaningful social critique and social action. Despite offering a safe space for discussing sensitive issues and fostering sense of community, it has been argued that peer education programs developed by government-funded Australian AIDS Councils have been bounded by an essentially apolitical focus (K. Miller, personal communication, 11 January 1999).

Because of its potential impact on the educational content and process, any research conducted into the development of innovative environmental peer education models will need to pay attention to organizational sponsorship. Issues to consider might include the sponsoring agency's official mission, its political agenda, its culture, and the extent to which it fosters advocacy and empowerment.

<u>Advocacy</u>

People with disabilities have often used adult peer education strategies to learn the advocacy skills necessary to pursue their individual and collective rights and interests (Butterworth & Murray, 1994). They have learned to represent their own rights and interests to the individuals and institutions that make decisions about their welfare and well-being, with the result that social policy and legislation has often been changed (Balcazar, Seekins, Fawcett, & Hopkins, 1990; Butterworth &

Murray, 1994). As a result, they have gained a greater understanding of "...the human weakness of more powerful people and the political nature of policies and their biases" (Cox, 1991, p. 88). By participating in the decision making in the institutions that affect them, people have been shown to help to make improvements to the services they use, contribute to the quality of life in their community, develop stronger social relationships, and increase their individual and collective sense of empowerment (Florin & Wandersman, 1990). The notion of advocacy provides a practical example of Mouffe's (1992a; b) call for an active, radical, and democratic citizenry, and offers promise to environmental educators.

Grassroots Organizing and Action Research

Peer education and advocacy training strategies developed to address community health issues have often been most successful when developed as part of grassroots organizing (Borkman, 1990; Butterworth & Murray, 1994). Grassroots groups (frequently referred to in community health literature as mutual help or self-help groups) often provide information, education, and advocacy in their communities (Cox, 1991; Schubert & Borkman, 1991). Grassroots organizations have emerged as key vehicles for citizens to come together in response to issues, and experience empowerment in their own neighbourhoods (Florin & Wandersman, 1990). By volunteering their time and energy to participate collectively in local community initiatives, people have experienced "a human-scale sense of place, purpose, and process that is rare in today's mass society... At their best, voluntary community organizations transform isolated individuals into public citizens" (p. 44).

Members of effective, empowering grassroots groups have learned to identify their needs, set achievable goals, identify strategies, assign members to tasks, evaluate their actions, and adjust their approach (Perkins, Brown, & Taylor, 1996). This process of investigation, planning, action, evaluation and revised planning reflects the stages of action research (Chesler, 1991; Wadsworth, 1991). By using action research, participants can obtain a deeper understanding of their situation by observing the link between their empowerment-oriented actions and the consequences of their actions (Zimmerman, 1995). Grassroots activists may be too involved in their activities to appreciate that they, and their peers, are indeed conducting research whilst investigating their issues of concern. Their focussed efforts might be helping to create local knowledge in the context in which they live and act (D'Aunno & Price, 1984a; b).

Given the centrality of action and reflection to emancipatory adult learning (Brookfield, 1986; Freire, 1970; Newman, 1994), a relationship can be observed between action research, adult learning, and education. Action research has been shown to be a powerful means of improving education practice, by directly involving researchers and the people most affected by the outcomes of the educational activity in the co-creation of new knowledge (Kemmis & McTaggart, 1988). An opportunity exists to investigate the efficacy of including action research principles into adult EE, to encourage participants to associate their learning with the generation of new knowledge and community action.

Research Questions

From the above discussion of health promotion, peer education, advocacy, grassroots organizing, and action research, a number of research questions emerge:

1. To what extent could the health promotion paradigm be adapted by environmental educators?

    a. How well might peer leadership training strategies assist in fostering grass-roots leadership and community participation?

    b. How useful are models of advocacy training?

2. What impact might organizational sponsorship have on community environmental leadership training, as compared to those self-generated through citizen initiative?

3. To what extent could inclusion of action research principles into the educational curriculum assist participants to move from environmental knowledge to action?

Thesis Outline

In order to address these questions, a number of concepts need to be examined in detail. A detailed analysis of environmental education is conducted in Chapter Two. A history of EE research since the late 1960s is presented, documenting the relative strengths and limitations of the research. This chapter argues for an EE model that embraces adult perspectives, and capitalizes on their opportunities to exercise political power by using pertinent local environmental issues as the stimulus for collective learning, in accordance with adult learning principles (Brookfield, 1986; Knowles, 1985).

In order to develop the heuristic framework for a community psychology model of EE, participation, empowerment and their interrelationship are explored in Chapter Three. This chapter highlights the role of the physical and social context in which community participation occurs, and describes the roles in fostering participation played by distal stimuli, such as urban geography; and by proximal stimuli, such as sense of community, and environmental disturbances (Perkins et al, 1996). It is contended that in order to participate effectively in grass-roots action, people will need to hold positive expectations about the instrumentality of their actions in that particular context. Some of these beliefs might be held initially by peer leaders within the community (Freire, 1970; Huygens, 1988). It is argued that members of effective grassroots groups will be skilled in forming and running community organizations, building networks and coalitions, and will be able communicate effectively within and beyond the group. In particular, they will be able to engage the group in the action research cycle of investigation, planning, action, reflection and revision, with a particular focus on analysing the sources of social power enmeshed in their environmental issue (Freire, 1970; Manz & Gioia, 1983; Newman 1994).

Chapter Four provides an example of similar models applied in other disciplines, and describes the emergence of health promotion as an adult education paradigm promoting community participation and empowerment. This chapter explores the development of health education paradigms and strategies; examines the parallels to EE; identifies the application of adult education principles; investigates models of empowering education discussed in the health promotion literature,

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including peer education and advocacy training; and recommends an adult EE model that integrates these components.

Chapter Five establishes the context for the fieldwork that was conducted during this research. It outlines the action research methodology through which group leader training material was developed, implemented and adapted during three iterations at two research sites. The chapter also describes the data collection methods that were selected in order to document training outcomes and participants' experiences. Chapters Six, Seven and Eight report on the research process conducted, and the findings obtained in each iteration. An integration of these research findings and a discussion of methodological issues arising from the fieldwork are provided in Chapter Nine. Finally, Chapter 10 reflects on the meaning of the research findings in the light of the research questions listed above.

CHAPTER 2

ENVIRONMENTAL EDUCATION: HISTORY AND CRITIQUE

Introduction

Educational definitions and practice have been debated since antiquity, and

have always reflected the nature of a society's social organization, technology, and

world view (Jarvis, 1985). EE emerged as a discipline in the late 1960s, during a

period of unprecedented growth in population, technology, production of goods,

consumption of resources, and pollution, and an embryonic, global environmental

concern (ANOP Research Services, 1993; Dunlap, et al., 1993; Dunlap & Van Liere,

1978). Although EE research has contributed to knowledge of factors affecting the

development of environmental concern and the promotion of 'responsible' individual

behaviour (Robottom & Hart, 1993), most research has been targeted apolitically and

individualistically at children in formal educational settings. Mass media campaigns,

targeted at both adults and children, have also contributed to global environmental

concern, but have largely neglected or avoided any social critique (King, 1994). By

default, EE has tended to promote social and cultural replication, rather than

encouraging the political debate and legislative change needed to address the

political root causes of environmental issues (Clover, 1995; Fein, 1993; Robottom &

Hart, 1993; 1995).

This chapter will explore and critique the development of EE during the last

30 years. Due to their ubiquity and influence in the field (Robottom & Hart, 1993),

the EE research efforts of Harold Hungerford and his colleagues will be explored in

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some depth. Opportunities to encourage adults to engage in deep learning through empowerment-oriented, socially critical education will be discussed.

History of Environmental Education Research

In encouraging 'knowledge' of environmental problems, 'awareness' of how to resolve them, and 'motivation' to act, Stapp et al's (1969) early definition of EE, "...aimed at producing a citizenry that is knowledgeable concerning the biophysical environment and its associated problems, aware of how to help solve these problems, and motivated to work towards their solution" (p. 31), did not explicitly specify action as a requisite educational outcome. Nevertheless, they did describe an array of inherently political activities that citizens could make, both individually and collectively, to influence social policy. These included voting, electing representatives to decision-making bodies, serving on these committees and supporting appropriate legislation. Despite this clearly adult perspective, subsequent EE research focused on environmental appreciation (Hungerford, Peyton, & Wilke, 1980), rather than social critique, perhaps because of its rapid focus on formal school education (Iozzi, 1984). By the mid 1970s, as foreshadowed by Stapp et al., environmental problems were widely recognized as essentially political and ideological in nature (Milbrath & Inscho, 1975). Environmental educators attempted to incorporate this awareness into their research, and to develop collective educational goals.

In 1977, participants at the landmark international Intergovernmental Conference on Environmental Education in Tbilisi, Georgia, identified the objectives of EE as helping individuals and 'social groups' to (i) become aware of the world's

ecology, environmental problems and their attendant political issues; (ii) develop an

understanding of and sensitivity to ecology, environmental problems and issues

through direct experience; (iii) develop an attitude of environmental concern and

become motivated to take action; (iv) gain the skills needed to identify and solve

environmental problems and/or issues; and (v) participate actively at all levels of

society in working towards resolving these problems or disputes (Hungerford et al.,

1980). Following this conference, Hungerford et al. developed several goals for EE

curriculum development, as summarized in Figure 1.

Goal Level	Desired Outcome
Superordinate Goal	"To aid citizens in becoming environmentally knowledgeable, and, above all, skilled and dedicated citizens who are willing to work, individually and collectively, toward achieving and/or maintaining a dynamic equilibrium between quality of life and quality of the environment" (p. 43).
Sub-Level I: Ecological Foundations	Learners should develop a strong, holistic ecological foundation for making environmental decisions.
Sub-Level II: Conceptual Awareness of Issues and Values	Learners should appreciate the role of human values, economic systems, individual and collective action, and political activities in both creating – and resolving – environmental issues.
Sub-Level III: Investigation and Evaluation Skills	Learners should acquire the necessary skills to investigate issues, collect and analyse data, and assess the relative merits of various courses of action, based on an appreciation of the values inherent in each course of action.
Sub-Level IV: Environmental Action Skills	EE should not only assist learners to acquire the skills needed to take individual or group action, but to apply these skills directly by taking citizen action. 'Responsible citizenship action' includes persuasion, consumerism, legal action, political action, and ecomanagement.

Figure 1 Identification of EE Curriculum Goals by Hungerford et al. (1980).

These goals were subsequently used as a benchmark for reflecting on early

progress in the field, and for guiding research. For over a decade, Hungerford and his

colleagues drove the synthesis of environmental research and its incorporation into integrated EE models (e.g., Hines & Hungerford, 1984; Hines et al., 1986/87; Sia et al., 1985/86; Hungerford & Volk, 1990). However, the politically engaged outcomes sought in the goal, 'Environmental Action Skills', were only partially embraced in their own research.

Using Hungerford et al.'s (1980) curriculum development goals to review more than 400 EE research papers published between 1971 and 1982, Iozzi (1984) observed that whilst almost half of all papers had attempted to foster awareness and knowledge of issues, fewer than 17% had attempted to address the need for 'citizen action'. In addition, 96% of papers had focused on formal education. Hines and Hungerford (1984) concluded that formal school settings were not promoting 'responsible' environmental action sufficiently. Neither Iozzi, nor Hines and Hungerford, seemed to consider the effect of formal educational institutions, established to ensure sociocultural replication (Bates, 1984; Fien, 1993; Ottaway, 1962), in discouraging, however unintentionally, collective political action of children with little political power. This is unfortunate, given Hungerford's role in developing the influential, pro-advocacy EE curriculum goals, and guiding EE research into the 1990s (Robottom & Hart, 1993).

Hungerford and his colleagues next turned their attention to identifying the predictors of 'responsible' environmental behaviour. Sia et al. (1985/86) reported that respondents from two grassroots environmental organizations obtaining 'high' scores on a scale assessing environmental behaviour reported greater levels of 'ecomanagement'; 'persuasion'; 'consumerism'; 'political action'; and 'legal action' than did respondents with 'low' scores. High scorers also reported a greater influence

of role models such as family, teachers, friends, and professional associates, in shaping their environmental sensitivity. In addition, they held a perception of being moderately effective as an individual but more so as a member of a group. Their study hinted at the importance to EE of collective adult learning, peers and other role models, and coalition-building.

Hines et al.'s (1986/87) meta-analysis of 128 behavioural studies published since 1971 identified: (i) knowledge of issues; (ii) knowledge of action strategies; (iii) locus of control; (iv) attitudes; (v) verbal commitment; and (vi) the individual's sense of responsibility. Interestingly, they acknowledged that situational factors, such as 'social pressures', could influence a person to behave in 'responsible' ways, even if they had great desire to do so. However, as in the case of Sia et al. (1985/86), their analysis did not fully consider the effects of social and peer support in taking collective, political action. They recommended behavioural intervention strategies for individuals who did not possess the necessary 'personality characteristics' for developing the motivation to participate (p. 7).

Sivek and Hungerford (1989/90) subsequently identified group locus of control as a significant predictor of responsible environmental behaviour of members of one grassroots environmental organization. Their notion of 'responsible' behaviour did not differentiate between individual or group action. Group locus of control was simply defined as "those who feel in control of outcomes" (p. 38), perhaps more in line with the notion of collective efficacy as a perception of collective competence when engaged in a communal task (Bandura, 1982; Zaccaro, Blair, Peterson, & Zazanis, 1995).

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General Limitations of EE Research

Cantrill (1992) made the interesting observation that the dominant social

paradigm – which supports economic growth and a deterministic dependence on

economic and technological expansion (Dunlap, 1994) – has been the root cause of

environmental degradation, yet is the same paradigm that has influenced so much

positivistic EE research. Cantrill noted that despite widespread environmental

concern, which serves as a portent for a new, ecologically sustainable environmental

paradigm, societies worldwide are still in thrall to this world view. With the

economic rationalist paradigm prevalent globally (Pilisuk, McAllister, & Rothman,

1996), the dominant social paradigm may in fact be becoming further entrenched

among government and industry stakeholders. Perhaps reflecting the hegemonic role

of mainstream media and government in legitimating the dominant social paradigm,

public perceptions of solutions to environmental problems are still commonly

couched in terms of technological solutions, rather than a shift in world view. Many

of the following issues can be located in this paradox.

Individualistic Orientation

The primary focus of EE research on individual-level behaviour change has

been identified as a key factor in its failure to encourage social action. Robottom and

Hart (1995) stated that an individualistic research focus implicitly will ignore a

sociopolitical analysis of social structure and the distribution of power and wealth,

and the connection between social structure and individual beliefs, attitudes and

behaviour. As a result, individual behaviour is seen to result from individuals' errant

choices which can be remedied through appeals and education aimed at individuals.

"This individualistic ideology thus ends up 'blaming the victim' and actually fails to

address itself to the very social, historical and political factors that mitigate against changes in behaviour" (p. 7). For example, the authors noted that imploring people to use public transport, car pooling and bicycle use will fail in the absence of consideration of social factors such as consumer advertising and poor public transport funding, both of which promote car dependency.

EE research has tended to under-emphasize collective learning and action, and the mediating effect of situational and social factors on attitudes and behaviour. In order to act on an attitude of environmental concern, an opportunity to act must firstly exist. Secondly, people must perceive that this opportunity exists and that their actions can make a difference. Thirdly, people will make judgements as to whether significant others, such as their peers, would approve of this behaviour (Ajzen, 1988). The views held by peer referents also may be affected by the same environmental factors. Therefore, a whole community may be disempowered if, despite the existence of even a small opportunity to act, collective beliefs serve to limit the actions of members to improve their situation.

Peer role modelling was identified many years ago by Horsley (1977) as an effective influence on environmental behaviour. Although subsequent EE research has given some acknowledgement to the importance of role models (Sia et al., 1985/86) and social/situational factors (Hines et al., 1986/87; Sivek & Hungerford, 1989/90), it has yet to capitalize on the efficacy of peer influence and support in encouraging and maintaining proactive behaviour (Felton & Shinn, 1992). Models of environmental learning and action thus need to incorporate this social psychological dimension.

Continued Emphasis on Children

Despite Hungerford et al.'s (1980) assertion that a 'receiver' of EE could be any person of any age, who might be reached via either formal or non-formal educational settings in order to be educated to engage in 'citizenship behaviour', most research has remained in the classroom. Ironically, in order to determine the curricular requirements of school children, Hungerford's predictive studies had examined factors affecting the behaviour of adult members of grassroots environmental organizations (e.g., Sia et al., 1985/86; Sivek & Hungerford, 1989/90). In depicting children as 'future citizens' (p. 16), Hungerford and Volk (1990) implicitly acknowledged children's limited political power, such as their current inability to vote. This depiction also reflected Emile Durkheim's (c1922/1956) early definition of education as "the action exercised by the generations of adults on those which are not yet ready for social life" (p. 71). Yet this pre-Industrial Revolution notion of education, identified with trans-generational cultural replication, was already obsolete by the early 20th century (Jarvis, 1985; Ottaway, 1962).

Focus on the 'Natural' Environment

The term 'environment' in western culture is often depicted as the 'other', partly because of its connection with the word 'nature' (Weintraub, 1995). Weintraub argued that 'nature' can mean, firstly, anything not produced by people, or, secondly, the total sum of all existence. Whereas the second definition at least allows people to be part of nature, it overlooks the relationship between people and the rest of existence on the planet. In each definition of 'nature', people are implicitly defined as somehow separated from it. He argued that if we view 'environment' as an

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expression of a community's relationship with the natural resources on which its members depend, then any environmental crisis is, in fact, a crisis within that relationship.

Increasingly for humans worldwide, their immediate environment is urban, whereas the 'natural' environment is often seen as a remote wilderness far removed from their daily lives (Schaefer, 1992). Emphasizing the 'natural' environment at the expense of urban environments, as most EE research has done, may have had the effect of nullifying the importance of people's own, everyday, urban environmental experiences. Urban dwellers will be readily able to identify detrimental impacts of changes to local built environments, by virtue of their living in them. In contrast, their connection to 'natural' environment may be less concrete. Yet helping people deal with their immediate urban environmental concerns can serve as a starting point for extending their knowledge to include the ecology of life outside city environments. Furthermore, beginning with people's own, lived experience respects adult learning styles (Brookfield, 1986; Freire, 1970; Mezirow, 1991). It would appear that environmental education has a role to play in assisting residents to make the connection between the quality of their urban environment, their quality of life, and the broader understanding of environment.

The Role and Limitations of Mass-Media Campaigns

The limitations inherent in mainstream EE research can be found in the most visible of EE ventures, that propagated through the mass-media. Mass-media advertising strategies and news stories have been generated by government agencies, environmental organizations, and private corporations. Children and adults alike

have been targeted, especially in their capacity as consumers of products and services. Despite environmental problems and issues being often too complex to be presented in a brief newspaper article, television news report or advertisement, this is how most adults receive their environmental education (Chafee, 1995). As was the case in early AIDS awareness projects, many mass-media environmental campaigns have incorporated sensationalist elements to raise people's fears of impending doom whilst emphasising individual responsibility (Bunton, 1992; Janz & Becker, 1984; King, 1994; O'Riordan, 1995; Wall, 1995). By fostering widespread environmental concern and fear but without encouraging political insight, transfer of skills, or concomitant action, a society of "ecological bystanders" has been encouraged (Vitouch, 1993, p. 345). Furthermore, despite the fact that "we now live in an information matrix saturated with ecological and environmental references" (Cantrill, 1992, p. 36), pervasive media stereotyping persists in portraying environmentalists as deviants (Wade, 1991). Both factors may serve to dampen community participation.

An example of the impact of media stereotyping of environmentalists can be found in a public statement made by an organizer from the Save Our Suburbs (SOS) movement. [People throughout Melbourne have recently established branches of SOS in response to widespread public concern about the detrimental impact on urban amenity of invasive planning developments (Sutton, 1997b)]. Despite SOS clearly having formed in response to an urban environmental issue, the organizer distanced herself from any association with the environmental movement: "We are ordinary middle-class citizens... I will not be tarred green under any circumstances." (Carlyon, 1998, p. 25). This example demonstrates the detrimental effect of media stereotyping on engaging everyday people in environmental debate and encouraging a deep

identification with environmental issues (Toyne, 1998; Wade, 1991). As such, the stigma attached to environmental activism has served to reinforce the schism between perceptions of urban and natural environments (Weintraub, 1995).

Like many public health education campaigns, many state-sanctioned environmental messages have been conceived and delivered by 'experts' to passive 'consumers' in the population. These campaigns have usually focused on individual behaviour change, with the assumption that people would act accordingly (Malcolm, 1992, 1997; Robottom & Hart, 1995). However, such approaches fail to consider people's differing values; their ability to participate in investigating and decision-making on the desired 'solutions'; or the sociopolitical context of the problems or their resolution (Malcolm 1992, 1997).

According to Weenig and Midden (1991), mass media had been identified as early as the 1940s as a poor source of persuasive influence on public behaviour change, and that face-to-face contact was the most influential. Yet mass-media education campaigns have provided corporations, governments and environmental organizations with a cost-effective means to be seen to be responding to global environmental concern. By sponsoring individualistically-oriented, apolitical community environmental messages, many corporations and governments have avoided the necessity of addressing deeper problems that lie in the ecologically unsustainable, 'instrumentalist' world view that forms the dominant social paradigm (Dunlap, 1984; King, 1994; Milbrath, 1984; Robottom & Hart, 1993, 1995). For example, people have been exhorted to service their cars to reduce air pollution, rather than being given a message to use public transport (e.g., Public Transport Users Association, 1999). King noted the paradox of people being exhorted, by

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messages shown on commercial television, to engage in individually responsible behaviour, whilst simultaneously being actively encouraged to consume environmentally contentious products.

Media depictions of communal activity, such as in the case of Clean Up Australia Day, do serve to mobilize the population, but mainly in addressing collectively the cumulative effects of individual action – such as littering. It must be acknowledged that Clean Up Australia Day has encouraged local community initiative and reliance, involved adults and children, and served to present politicians with a graphic reminder of widespread environmental concern (Kissane, 1996). However, such campaigns do not currently aim to encourage citizens to address the impact of politically expedient environmental policies that set minimal standards on industrial emissions, and provide industries and corporations with unfettered access to ecologically sensitive natural environments (Hawken, 1993; Milburn, 1996). Indeed, Larson, Forrest and Bostian (1981) observed that people's commitment to participate in pro-environmental behaviour could be most accurately and sensitively predicted by their engagement in the political process.

Hungerford and Volk's (1990) EE Model

In a candid reflection on the overall success of EE, and by imputation their own efforts, Hungerford and Volk (1990) stated that "when current reports on environmental quality are considered, we must admit that we have not been successful, on a widespread basis, in convincing world citizens to act in environmentally responsible ways" (p. 16). In a bid to provide EE research with a sense of direction, which they argued had been lacking in the 1970s and 1980s, they

attempted to synthesise their previous findings (e.g., Hines et al., 1986/87; Sia et al., 1985/86; Sivek & Hungerford, 1989/90) and other research to identify three categories of variables which, in combination, would encourage people to act in accordance with the five EE objectives developed at Tbilisi in 1977. These categories were: (i) entry-level variables, (ii) ownership variables and (iii) empowerment variables (see Figure 2). Because of its inclusion of the notion of empowerment, the commitment to foster multi-level environmental participation, and its potential utility, the model is worthy of detailed analysis.

Entry-level variables were described as being the key predictors of behaviour, of which environmental empathy, or sensitivity, was the most powerful. It was argued that people's environmental sensitivity could be triggered through their exposure to pristine as well as degraded physical environments, and also to "an environmentally sensitive social environment" (Hungerford & Volk, 1990, p. 15). Other entry-level variables included knowledge of ecology, and attitudes toward pollution, technology and economics.

Ownership variables were defined as those that make environmental issues personally relevant to an individual. Hungerford and Volk (1990) stated that people to need to have an in-depth understanding of an issue's ecological, and human implications before they will act on it. They added that people also need to appreciate the personal impact of the issue. Indeed, it has been noted that people must feel personally and directly affected by an environmental issue before they will be prompted to act on it (Finger, 1994; Wall, 1995), a fact reinforced by participation research (Perkins et al., 1996). Hungerford and Volk argued that because all

ENTRY LEVEL VARIABLES:

Environmental Sensitivity

———————————

Knowledge of Ecology

Environmental Attitudes

OWNERSHIP VARIABLES

In-depth knowledge of issues

Personal investment in issues

———————————

Knowledge of consequences of behaviour

Personal commitment to issue resolution

EMPOWERMENT VARIABLES

Knowledge of and skill in using environmental action strategies

Locus of control (expectancy of reinforcement)

Intention to act

———————————

In-depth knowledge about issues

ENVIRONMENTAL CITIZENSHIP BEHAVIOUR

active participation "at all levels in working toward resolution of environmental problems [and/or issues]"

Figure 2 Hungerford and Volk's (1990) Predictive Model of Environmental Citizenship Behaviour

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environmental behaviour has its roots in environmental issues, education efforts must

emphasise ownership variables over entry level variables. By basing their learning on

environmental issues rather than awareness and knowledge, students would develop

a sense of ownership and empowerment, and become "fully invested in an

environmental sense and ... responsible, active citizens" (p. 17).

The third category of predictive variables used in Hungerford and Volk's

(1990) model were empowerment variables. These variables were seen as

interrelated, and included knowledge of action strategies, and the perception of

having sufficient skills and personal power to be able to use the action strategies to

some effect. The authors also identified locus of control as a related empowerment

variable, noting that educators must create "an instructional setting that increases

learners' expectancy of reinforcement for acting in responsible ways" (p. 14). They

argued that empowerment was a crucial, yet neglected, feature of most EE.

Strengths of Hungerford and Volk's Model

Because of its inclusion of the notions of empowerment and multi-level

environmental citizenship behaviour, Hungerford and Volk's (1990) model signifies

an important advance in mainstream EE curriculum development. Their model

presents an opportunity to integrate a more holistic understanding of the

empowerment construct, and to move from an individual to a more collective

analysis of adult learning and social action on substantive environmental issues.

By reiterating Hungerford et al.'s (1980) early definition of 'environmental

citizenship behaviour', as impacting at all levels of society, Hungerford and Volk's

model implicitly supports a more robust notion of empowerment as a multi-level

construct, with learning and behavioural dimensions that are inherently political.

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Integrating a community psychology notion of empowerment allows their EE model to embrace the advocacy efforts of adults working individually and collectively "at all levels" of the social system (Hungerford & Volk, 1990, p. 9). In so doing, discussion of citizenship could progress from terms of 'doing one's civic duty' within the existing social system (Newman, 1994), to one which "emphasizes the value of political participation and attributes a central role to our insertion on a political community" (Mouffe, 1992, p. 227).

Hungerford and Volk's (1990) EE model also offers significant promise because of its emphasis on the need for people to base their learning on concrete issues. Focussing on the primacy of issue-based learning, by necessity, situates EE in a social and political context, and implies that any educational efforts must reflect their social context and draw on locally relevant issues. The model provides an antidote to EE approaches which have often inhibited local community action by their focus on global issues (Schaefer, 1992). Grounding learning on concrete environmental issues highlights the role of empowerment in activating attitudes of environmental concern and 'ownership', expressed in the intention or personal commitment to act, with actual action (Ajzen, 1988). As such, the model implies a contextual approach to learning and action, which meets people's learning needs and reflects their initial levels of knowledge and empowerment. These are key features of adult education (Brookfield, 1986).

Opportunities Presented by Adult Education Perspectives

In contrast to pedagogical assumptions inherent in children's education that are based on childhood psychosocial development (e.g., Durkheim, c1922/1956), an

adult is defined as "one who has arrived at a self-concept of being responsible for one's own life, of being self-directing" (Knowles, 1985 p. 9). Adult education has come to be appreciated as a lifelong process by which people draw on their shared histories, values and knowledge, in order to derive meaning from their life experiences, redefine internally-held schema, and develop collective solutions to their personal and communal problems (Gergen, 1985; Rennie, 1990). Knowledge has been redefined as the understanding shared amongst people actively engaged in communicating through the use of language (Habermas, 1979; 1984; 1987; Welton, 1995). Adult learning is seen to involve an examination of the relationship between knowledge and the world views that are developed, shared and maintained by people in social relationship (Gergen, 1985; Mezirow, 1991; Sarason, 1984).

In contrast to children, who often have little choice in formal educational settings, adults will reject educational methods that remove their sense of autonomy. Participation in adult learning must, therefore, be voluntary (Brookfield, 1986). Adults will seek learning about an issue or topic when they identify that this knowledge will help them live more effective lives. People become ready to learn when they identify a need to learn about a particular topic. This is often triggered by transitions through life stages, such as bereavement, employment changes, and other changes to one's environment. Knowles (1985) acknowledged that other inducements to readiness include effective role models, and the provision of opportunities to reflect on the quality of their lives and consider paths they might like to take to lead a more satisfying life. People's motivation to learn is intrinsic, based on particular life circumstances, tasks or problems. If people feel that the learning experience is not relevant to them, they will disengage from it. Brookfield concluded

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that learning must reflect participants' prior experiences and/or current issues. Knowles argued that a learning process that discounts adults' prior life experience will also discount their notion of self – and their dignity. For all these reasons, adult learning needs to be seen as a process that can happen anywhere; not just in formal educational settings.

Because adults need to be able to explore the culturally constructed and transmitted nature of their world view, they must critically examine the social context of knowledge and education, and the relation between knowledge, power and ideology (Brookfield, 1986; Foley, 1995a; b). This critical examination occurs in an ongoing cycle of action and reflection, known as praxis, which forms a key feature of emancipatory, or empowering, adult learning (Freire, 1970; McMillan et al., 1995). From this perspective, taking reflective action can be an empowering process in itself. Brookfield (1986) defined empowered adults as perceiving themselves to be "proactive, initiating individuals engaged in a continuous recreation of their personal relationships, work worlds, and social circumstances, rather than as reactive individuals, buffered by uncontrollable forces of circumstance" (p. 11). Empowering education helps to create settings in which adult learners can experience power (Foley, 1995b; Wallerstein & Bernstein, 1988).

Wallerstein and Bernstein (1988) described 'empowerment education' as encouraging people to participate in group discussion and action aimed at changing aspects of their community, enhancing their sense of control and their belief in being able to change aspects of their own lives. They described the process of empowerment education as involving people acting as a group, firstly to identify their problems, then to explore the historical and social factors which have helped to

cause their problems. Next, people need to develop a vision of the society they want

to help create, to develop goals for achieving this. People need to give particular

emphasis to identifying possible obstacles in their path towards achieving their goals.

It is through participating in their community that people redefine themselves and

develop a new belief in their ability to change aspects of their personal and social

environments.

In addition to notions of empowerment education, popular adult education

has been identified as promoting social action and multi-level empowerment;

including an analysis of power relations; operating at the grass-roots level; and

drawing on people's lived experience (Clover, 1995). Feminist popular education

promotes the inclusion of all people in learning and decision making, recognizes the

role of feelings and emotions in learning, and promotes a range of learning

experiences in order to attract women and other disenfranchised people. Clover

described critical environmental adult education as drawing together the principles,

theories and practices of adult education, popular education and feminist popular

education, as well as incorporating indigenous concepts of the human-physical

environment relationship, "to develop an education practice with, by and for adults

that is more holistic, critical, comprehensive, challenging, flexible, action-oriented

and nature-focused" (p. 48). This structure provides learners with a new schema for

explaining and integrating their own experiences.

Clover (1995) described workshops which were tailored to match the host

community's needs and perspectives. Community representatives participated in

developing the overall theme and the education design. Participatory education

methods involved reflective action; a critical analysis of the socio-political roots of

environmental problems; the sharing of the critical adult environmental education framework; the range of tools used; and the documentation of the education programs.

In sum, adult learning principles can be seen to differ markedly from formal school educational styles. Clearly, popular, empowering adult environmental education holds significant potential for people to reflect on the relationship between "pressure on a community's environment, the community's lack of political power, and the degraded quality of life of that community", and can assist them to increase their understanding of, and act on, "both the human and the ecological condition" (Weintraub, 1995, pp. 356-357).

Conclusion

In this chapter it has been argued that a model of EE is needed that embraces adult perspectives and capitalizes on their opportunities to exercise political power. Hungerford and Volk's (1990) EE model holds promise in their notion of empowerment-oriented learning based on concrete issues as a precursor to people enhancing their ecological understanding and engaging in sociopolitically active citizenship. Using pertinent local environmental issues as the stimulus for collective adult learning and action respects adult learning principles (Brookfield, 1986; Knowles, 1985) and can serve to foster a sense of community (Perkins et al., 1996), and empowerment (Wallerstein & Bernstein, 1988). A rewarding and relevant EE could encourage urban residents to gain an appreciation of the diverse ways in which they interact with, and relate to, their urban, built environments, in addition to the 'natural' environment.

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CHAPTER 3

PSYCHOLOGICAL DIMENSIONS OF

PARTICIPATION AND EMPOWERMENT

Introduction

According to Berkowitz (1996), people have a deep-seated need to participate in civic activity. Indeed, he argued that participation and social support are key elements to sustainable communities. To be fully sustainable, communities must not only fulfil practical infrastructure requirements, but meet deeper psychosocial needs: "community life is sustained when social networks are strong, when there are people with common interests and who feel a sense of common fate" (p. 452).

People increasingly belong to multiple communities, defined not only by where they live or work, but also by networks and organizations to which they belong for shared personal and political interests. Heller (1989) noted that because of communication and transportation technology, people are able to transcend geographical location to form relational communities based on mutual interests. Relational communities serve to assist people to meet their personal needs through interaction with a supportive group, whilst also providing a link between the individual and society at large. Whereas the extended family is likely to perform this function in traditional societies, in the post-industrial West, this important socialisation function is more likely to be performed by voluntary organizations and informal peer support networks. Currently, however, "the dilemma is that while many social ties are not locality-based, political influence and power are still distributed by geographic regions" (p. 7).

Despite the centrality of democratic participation to our psychological and collective well-being, community participation has been significantly affected by several aspects of the postmodern era (Pilisuk et al., 1996) (see Figure 3). Community life has become fragmented as local resources and legislation becomes increasingly owned and controlled elsewhere, often by multinational interests; as urban spaces become increasingly divided by major roads; and/or as leisure time becomes increasingly scarce, or increasingly empty.

	Postmodern feature	Example/Interpretation
1	The supportive capabilities of communities have declined and become fragmented.	Geographical and relational communities are no longer co-situated; many people live alone.
2	Local problems are often the symptoms of global phenomena.	Scarce and demeaning employment are two symptoms of a global, free-market economy.
3	Power and resources are being diverted from local stakeholders to multinational corporations.	Global organizations increasingly are bypassing local legislation on environment, labour and taxation, in the search for the highest economic returns.
4	As community resources become increasingly owned by remote interests, people are less able to access information about the global root causes of local problems.	People become more susceptible to blaming local scapegoats – often with the tacit encouragement of corporations and the state. Powerful corporations have significant resources to collect the information they need to further their interests.
5	The circumstances surrounding people's lives are increasingly determined by centralized, remote decision-makers, who employ centralized symbols of legitimacy.	Professional lobbyists are employed by global corporations to ensure that legitimated symbols of authority, in the form of government legislation and policy, further corporate aims, regardless of their local community impact.
6	Because of the disempowering influence of mass-media, many people spend their free time engaged in passive leisure, instead of engaging actively and collectively in critical reflection on the root causes of their alienation.	People may spend up to five hours per day watching television, leaving them little time for participating in the social and political life of their neighbourhood or society.

Figure 3 Social Features of Postmodern Era (Pilisuk et al., 1996)

A striking phenomenon amongst contemporary Western societies is that, despite these alienating features of the built and social environment, grassroots groups have proliferated. Grassroots groups were described by Florin and Wandersman (1990) as being: (i) based in a specific geographical location; (ii) driven by volunteer initiative and energy, rather than paid staff; (iii) locally initiated by people coming together to respond to issues in their own neighbourhoods; (iv) small and 'human-scaled', perhaps as an antidote to the alienation of large bureaucracies and corporations; (v) usually formed to address local problems. People tend to identify problem solving as the purpose for these organizations. Participation in grassroots groups provides ordinary people with an opportunity, lacking elsewhere in a fragmented post-industrial urban landscape, to meet their deep-seated human needs to participate in civic activity, find solutions to shared problems, redress social inequalities, build up the 'democratic capital' of their community, experience sense of community, achieve psychological empowerment, develop an organized, influential political constituency, and achieve empowerment of their wider community (Berkowitz, 1996; Heller, 1989; McMillan & Chavis, 1986; Perkins et al., 1996; Rubin & Rubin, 1992). Participation is, thus, a key to community building, and to personal and collective empowerment.

This chapter will examine the dimensions of participation, sense of community, and empowerment, and detail their interconnectedness. Discussion will focus on the example of participation in grassroots groups to influence environmental decision-making. A feature often overlooked in everyday discussions of participation, perhaps it forms the background context by which we live our lives (Sarason, 1974) is the impact of the physical environment on our sense of community

and our participation in community life. Therefore, in order to provide background context to this chapter, the review of literature will commence with an exploration of the relationship between people and their physical environment.

Person-environment Relationship

We do not just 'exist' within a physical environment – we interact with it and derive important meaning from it (Altman 1993). Altman noted that the physical environment is more than an influencing factor in people's behaviour – "it is also a medium, milieu or context in which personal relationships are embedded, and without which they cannot be viable" (p. 34). Spaces, places and buildings are more than just props in people's lives; they are imbued with meaning and resonance. Environmental meanings are not merely constructed by individuals – they are also rendered by the broader culture and social structure in which people live (Saegert & Winkel, 1990), and conveyed by the semiotics embedded into the built forms with which people interact (Cohen, 1974). Indeed, the physical environment is a repository for our collective memory (Boyer, 1994). However, perhaps as a consequence of the dominant social paradigm which has viewed people as separate from and dominant over nature, and valued exploitation of natural resources to create economic growth (Birkeland-Corro, 1988; Hawken, 1993; Milbrath, 1984), appreciation of the link between the quality of people's relationship with place and their individual and collective well-being is generally limited in western culture (Read, 1997).

Sense of Place

Sense of place refers to the feeling of attachment or belonging to a physical environment, such as a place or neighbourhood, and the sense of personal and collective identity that comes from this sense of belonging (Jacobs, 1995; Rivlin, 1987). Places can act "to define the individuals to themselves and to the world" (Rivlin, 1982, p. 79). They symbolize people's personal histories, interpersonal relationships, and shared events in their extended social relationships, families, communities and wider culture (Altman, 1993). Rivlin (1982) noted the connection between place attachment and the development of local connections and roots linked to a person's personal history, and feelings of comfort and security. As a neighbourhood's buildings – public landmarks as well as private houses – provide the physical backdrop by which people live their lives, attend local community events and interact with each other, it follows that people will develop a shared emotional connection to their local built community landmarks (McMillan & Chavis, 1986). Jacobs (1995) argued that place attachment is a deep human trait:

> People do not simply look out over a landscape and say 'this belongs to me'. They say, 'I belong to this'. Concern for familiar topography, for the places one knows, is not about the loss of a commodity, but about the loss of *identity*. People belong in the world: it gives them a home (p. 109, original emphasis).

Place attachment reflects the expectations people hold as to where and how they plan to live their lives in the future (Altman, 1993). Even in dilapidated surroundings, such as run-down tenement buildings, people can form attachments to place, and will resist moving away from the social networks they have developed

there (Saegert, 1989). Indeed, they may even mobilize to protect these dwellings (Saegert & Winkel, 1996).

As the places in which we live and interact change, so do we undergo personal change. Therefore, our experience of a change in a place is "both a serious environmental issue and a deeply personal one" (Hiss, 1990, p. xi). When cherished places, spaces, and settings are destroyed or irrevocably changed beyond our control, we feel a sense of loss and grief (Read, 1996), similar to that felt at the loss of a personal relationship which was expected to last indefinitely (Altman, 1993). With no word in the English language to describe the psychological effects of being uprooted, displaced, or dispossessed from a loved place, people living in dominant Anglo cultures may have difficulty comprehending the emotions they feel as they watch favourite public spaces or even places where they have never lived being demolished or redeveloped without their approval or informed consent. People forcibly separated from these physical spaces through political planning decisions often have no recourse to expressing their grief or having it acknowledged by authorities (Read, 1997). This has been particularly the case for many indigenous peoples, such as Australian Aborigines, for whom the notions of one's people and place are inseparably bonded. Their removal from place and land has been catastrophic (Barwick, 1991).

Environmental and urban planning worldwide is increasingly controlled by owners of private capital, who use public space to maximize their own private profit (Rogers, 1998). By placing primary importance on economic expedience, developers often overlook many psychologically important, 'intangible' factors, such as people's aesthetic values in the visual environment (Kaplan & Kaplan 1982a; b; c;

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1989); safety concerns (Rich, Edelstein, Hallman, & Wandersman, 1995); sense of meaning (Read, 1996; 1997); or place (Altman, 1993; Hiss, 1990). Hiss noted the ad-hoc nature of much development, and the guesswork that accompanies the forecasting its psychological impact:

> Probably no one – not even architects who can visualize their own work, and certainly not mayors or planning commissioners – can previsualize the effects that large-scale rebuilding will have on the experiencing of an area, because this means trying to previsualize the cumulative effect on an area of years change and redevelopment. And so most predictions about the effects of full-scale rebuilding are largely guesswork. When the guesses turn out badly, as they frequently do, there is likely to be widespread distress – after the fact – about the loss of a valued experience (p. 62).

Corporate urban developers currently tend to create single-use spaces and then window-dress them to give a veneer of an organic urban environment. "Inevitably, the streets and squares of this counterfeit public domain lack the diversity, vitality and humanity of everyday city life" (Rogers, 1998, p. 24). As a result, the complexity of 'community' has been untangled and public life has been dissected into individual components. Rogers argued that this reflects Western society's current preoccupation with privacy and independence, the rise of private transport, and the devolution of government commitment to democratic planning.

Local neighbourhoods have often been cut off from each other by heavy road traffic (Appleyard & Lintell, 1982), further inhibiting participation in local community life. With the decline of local community networks, access to

opportunities for collective participation becomes increasingly difficult: "It is this lack of 'sense of community' that moves the study of community to the heart of the dilemma of modern social life, namely, the concern that alienation is the fate of citizens in technological societies" (Heller, 1989, pp. 3-4). The proliferation of grassroots groups, in spite of these barriers to participation, might be seen as a deep-seated response by many citizens to find a sense of meaning and community in their lives (Berkowitz, 1996), as well as to enhance the amenity and sense of place of their local neighbourhoods.

<div align="center">Psychological Sense of Community</div>

Whereas the notion of community has historically referred to a geographical region, the term increasingly has come to reflect the reality of industrial society in which people, due to their increased mobility, relate to each other by their shared interests and skills, outside of any territorial boundary (McMillan & Chavis, 1986). In reflection of the impact of modern society on notions of community, McMillan and Chavis' influential definition of sense of community (SOC), as "a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members' needs will be met through their commitment to be together" (p. 9), incorporated not only a geographical component, but also a relational component. However, given the nature of place attachment, it is argued that it is the geographical, or territorial, component of SOC that needs to be emphasised, in order to improve people's relationship with their physical environment, and thus the amenity of their neighbourhoods.

<div align="center">43</div>

Glynn (1986) discovered that people who included the notion of neighbourhood as an integral component in their definition of a community scored significantly higher on measures of SOC, community satisfaction and community competence, than did those who did not include neighbourhood in their definition. In addition, the latter scored significantly higher than the former on a scale measuring their ideal SOC. Glynn concluded that:

> we may think that our neighborhood is no more than a minor element in the grander concept of sense of community, but the neighborhood, in fact, remains an integral part of it. Though the neighborhood may no longer be the hub around which sense of community revolves, it does appear to be a significant contributor to the sense of community we do feel (p. 350).

McMillan and Chavis' (1986) Model

McMillan and Chavis' (1986) notion of SOC comprised four elements: (i) membership; (ii) influence, (iii) integration and fulfilment of needs and (iv) shared emotional connection. Membership was described as a feeling of belonging and relating to others. Influence refers to "...a sense of mattering" (p. 9), in which a person feels as if their membership makes a difference to the group and that the group matters to them. The third element, integration and fulfilment of needs, refers to the reinforcement that derives from a person meeting their needs through membership to the group. The fourth component, shared emotional connection, refers to the sense of shared history, places, time, symbols and experiences.

In a neighbourhood setting, the notion of membership can derive from the symbolic boundaries that people use to denote their neighbourhood (McMillan &

Chavis,1986). It can relate to landmarks such as roads, railway lines or buildings, or other, more subtle markers, such as graffiti. Neighbourhoods can be prescribed by government ordinance, or be organic, resulting from patterns of interaction, folklore and identification built up over long periods. The authors stressed the importance of a common symbol system as the basic building block of sense of community. In terms of physical neighbourhood, then, the symbolism of locally treasured architectural landmarks, can provide a sense of collective identity, as well as serve as a boundary from other districts. They provide people with a sense of membership and belonging. In addition to the positive influence of existing landmarks, SOC has been found to be positively affected by urban planning that encourages visual coherence, diversity and attractiveness of houses and other buildings; affords sufficient privacy; ensures residents have easy access to amenities, parks, recreation facilities and the town centre; offers pedestrian-friendly spaces; provides streetscapes so that houses have views of the neighbourhood; encourages open verandas and low fences in order to encourage social interaction; and restricts motor traffic (Altman, 1975; Appleyard & Lintell, 1982; Beach, 1995; Berkowitz, 1996; Plas & Lewis, 1996; Watt, 1982; Wilson & Baldassare, 1996).

Subsequent Research

In an attempt to coordinate and integrate two decades of research in community identity, Puddifoot's (1996) review of the literature synthesised 14 dimensions, as outlined in Figure 4 below. These dimensions embrace and highlight McMillan and Chavis' (1986) depiction of the geographical and relational components of community, and also serve to articulate their interaction.

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Dimension 1	Members' own perception of boundaries, and key topographical/built features of their identity.
Dimension 2	Members' own perceptions of key social/cultural characteristics of their community.
Dimension 3	Members' own perceptions of the degree of physical distinctiveness of their community.
Dimension 4	Members' own perception of the degree of distinctiveness of key social/cultural characteristics of their community.
Dimension 5	Members' own perceptions of the special character of their community.
Dimension 6	Members' perceptions of their own affiliation/belonging/emotional connectedness to location.
Dimension 7	Members' perceptions of their own affiliation/belonging/emotional connectedness to social/cultural groupings/forms.
Dimension 8	Members' perceptions of others' affiliation/belonging/emotional connectedness to location.
Dimension 9	Members' perceptions of others' affiliation/belonging/emotional connectedness to social/cultural groupings/forms.
Dimension 10	Members' own reasons for identification (or not) with the community.
Dimension 11	Members' own orientation to their community.
Dimension 12	Members' own evaluation of the quality of community life.
Dimension 13	Members' perception of others' evaluation of the quality of community life.
Dimension 14	Members' own evaluation of community functioning.

Figure 4 Dimensions of Community Identity (Puddifoot, 1996, pp. 335-336)

Puddifoot (1996) stated that dimensions 1 to 9 concentrated on a

community's *locus* – the arena in which community interaction occurs. He stated that

the notion of locus acknowledged that geographical and relational communities each

require some sort of 'meeting place' in which social interaction takes place. These

dimensions also dealt directly with community distinctiveness and identification. He

suggested that the first nine dimensions combined would enable people "to report on

their perceptions of the boundaries of their community, its key physical and

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environmental features, and the characteristic pattern if social relations felt to distinguish their community from others" (p. 332). Sense of place would thus appear to be embodied in these dimensions. Puddifoot also stated that dimensions 5 and 10 would enable people to articulate their sense of emotional connectedness to their community, thus reflecting their sense of place attachment.

Dimensions 8 and 9 attempted to provide an opportunity for people to consider their own perceptions in a broader social context. Dimension 11 attempted to obtain a more detailed understanding of a person's orientation to their community, by exploring their degree of personal investment in it, their attraction to it, the sense to which they imagined their future in it, their sense of 'emotional safety, and degree of personal involvement in, or alienation from, their community (Puddifoot, 1996, pp. 332-333). Dimensions 12 and 13 contained evaluative components to measure people's sense of their own, and others' perceptions of how well the community was functioning, in terms of community spirit, sense of mutuality, degree of neighbouring, and friendliness – terms reminiscent of McMillan and Chavis' (1986) notions of membership, influence, integration and fulfilment of needs, and shared emotional connection. Finally, dimension 14 assessed respondents' appraisal of the degree to which the community was functioning effectively, in terms of provision of services and amenities, economic opportunities, environmental quality, and the overall level of amenity of the community.

In response to their concern that the physical component had been under-emphasised in existing models of community used in social impact assessment interventions, Kelly and Steed's (1998) four-factor model of community contended

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that all communities comprise interdependent and interactive physical, social, economic, and political components, bound within the overriding context of their historical development and response to change. Furthermore, their model conceived each factor as having external and internal levels, representing the external trends and forces that impact on a particular locale or region, and the particular, internal components unique to that setting which exist, partly as a response to the external conditions. The physical factor of a community was defined as incorporating both natural and built characteristics of the community's environment. External-level components were identified as including geographical features of the natural landscape, climate, and also its degree of physical isolation. The internal level of the physical factor included features of the built environment and urban layout, as well as land usage that might impact on the physical environment.

The social factor of Kelly and Steed's (1998) model "describes the collective way in which members of a community relate, and includes both formal and informal social structures" (p. 6), and involves the interplay between external forces, such as broad social movements, and the internal demographic and cultural life of a particular community. The economic factor involves the interrelationship between external national and international economic trends, and, at the internal level, the community's ability to maintain a local economy. The political factor "conceptualises residents' awareness of, and participation in, the local and larger political systems" (p. 8). External components include ideological trends at the state and federal (and, arguably, international) level, such as debates over privatisation or nationalisation of municipal services. Internal-level political components include

"the role and influence of local government, a community's political efficacy such as its ability to mobilize around an issue, the ability of residents to form community groups to address particular issues, and the leadership of individuals or groups" (p. 8).

The final, underpinning factor of Kelly and Steed's (1998) model, that of historical development and response to change, serves as a reminder that all communities are in a state of constant flux. Consideration of this factor enables "changes at both levels of the four factors [to] be documented, to reflect the dynamic nature of a community while simultaneously assisting our understanding of its current and future prospects" (p. 8). Their model thus provides a useful connection between a community's history of adaptation to broad social and other trends, features of the natural and built environment, local and broader economic forces, and the ability of community members to collaborate effectively in response to local and broader political issues – including environmental disputes.

From the above discussion of the of the interplay between the physical, political, economic and social dimensions of community, it can be seen that sense of community is a key factor in participation (Chavis & Wandersman, 1990; Perkins et al., 1996). Working collectively to try to maintain and protect well-loved local landmarks can provide people with a sense of personal investment in the local community, and a sense that their contribution has some influence. People need not have participated in all the historic life of that neighbourhood in order to feel part of it, but they must identify with this history (McMillan & Chavis, 1986). The elements

of the physical environment which contribute to SOC are also likely to enhance residents' sense of place (Puddifoot, 1996).

Commenting on the relationship between placelessness and participation in planning, Relph (1976) argued that it is not that we cannot create a sense of meaning even in the most bland of modern urban environments; it is that we currently participate so minimally in their creation or maintenance. Consequently, "people live in buildings [and, by extension, neighbourhoods and cities] that inspire them or depress them and they don't even realise it" (Leunig, cited in Beck, 1998, p. 65). A key resource in replenishing treasured places is people's ability to 'know' their environment (long overlooked and devalued) and their capacity to explore their interaction with it through their own senses (Hiss, 1990). Although Hiss was referring to the physical environment, it could be argued that SOC could be similarly replenished by people reacquainting themselves with, and participating in the renewal of, their social environment.

Participation

Zimmerman and Rappaport (1988) defined citizen participation as "involvement in any organized activity in which the individual participates without pay in order to achieve a common goal" (p. 726). Participation can range from taking part in formal participatory processes, such as contributing to government advisory committees to informal activities, such as mutual-help groups, voluntary organizations and other community service roles. Participation can also occur outside legally defined boundaries, such as in acts of civil disobedience and other, 'radical'

forms of social action (Florin & Wandersman, 1990; Rubin & Rubin, 1992; Zimmerman & Rappaport, 1988). Taking part in community activity provides participants with a variety of benefits, including stronger interpersonal relationships, feelings of personal and political efficacy, and an individual sense of confidence and competence. By participating in the decision making of the institutions that affect them, people have been shown to help to make improvements to their community, develop stronger social relationships, and increase their individual and collective sense of confidence and political power (Florin & Wandersman, 1990).

Participation is influenced by several antecedents, which need to be documented systematically in order for participation to be understood (Wandersman, 1981). As detailed in Figure 5, Wandersman's participatory analytical framework involves an examination of contextual factors, individual differences, parameters of participation process, the effects of participation on individuals, organizations and communities, and mediating variables linking participation and its effects. Most salient to the present discussion on participation is a consideration of the contextual factors which might influence it. He argued that these include: (i) environmental characteristics – for example noise, architectural design, population density, and control over environmental stressors; (ii) ecological factors – such as geographical and built characteristics of a district, and behaviour settings as a function of physical space; and (iii) social characteristics – including a community's demographic profile, sociocultural norms, traditions, and social and neighbourhood networks.

Community context	• Environmental characteristics • Ecological factors • Social characteristics
Individual differences	• Socioeconomic factors • Beliefs in self-efficacy • Levels of empowerment • Ability to meet and transcend basic needs
Parameters of participation process	• Particular type of participation • Degree of meaningful decision-making involved • Characteristics of any grassroots organizations involved (size, objectives, function, stage of development) • Level(s) of the community at which participation occurs • Types of participants involved
Effects of participation on individuals, organizations and communities	• Evaluations of ecological, social and political aspects of participation's effects • Meta-evaluations detailing nature of evaluators and sociopolitical context in which evaluation occurred
Mediating variables linking participation and its effects	• Sense of mastery and control • Development of ecologically valid programs

Figure 5 Antecedents to Participation (Adapted From Wandersman, 1981)

From the above discussion it can be seen that our SOC and the attendant

likelihood of our participation in our local neighbourhood are intimately linked to the

built environment (Chavis & Wandersman, 1990). Indeed, Perkins, Florin, Rich,

Wandersman and Chavis (1990) discovered that New York residents' participation in

block associations was more likely to be catalysed by social and physical features of

their environment, than simply by demographic characteristics or their fear of crime.

Their study suggested that community organizers might be more likely to encourage

neighbourhood participation by providing residents with an opportunity to engage in

positive efforts to enhance the amenity of their neighbourhood, rather than by making

negative appeals to their fear of crime.

Whilst economic self-interest is one of the strongest predictors of

participation in grassroots organizations, the built environment "contains some of the

most stable attributes of a community and the... most distal correlates of participation" (Perkins et al., 1996, p. 89). Figure 6 outlines Perkins et al.'s predictive model for participation in grassroots organizations. It can be seen that architectural and urban planning features may foster communication and a sense of shared ownership and community amongst residents, reduce crime, and encourage participation in grassroots groups. Transient aspects of the physical environment which may impact on defensible spaces and denote disorder and 'incivility' include graffiti and vandalised or dilapidated property, which people may associate with crime. Development proposals which may have an adverse effect on local amenity and/or residents' sense of place and belonging can be regarded as transient aspects of the political environment which threaten to become distal properties of the neighbourhood's physical environment, thereby affecting it in the long term.

People often join local neighbourhood groups to try to deal collectively with these incivilities. Yet the most immediate ecological correlates of grassroots participation comprise "residents' individual and collective community-focused cognitions and behaviors" (Perkins et al., 1996, p. 90). Collective problem solving can be influenced by the level of 'community social cohesion', given that it encourages social interaction, information sharing and a sense of solidarity amongst residents. SOC is, thus, both a cause and effect of community participation.

Distal/Stable   Proximal / Transient

Physical
Environment

| Defensible space/ Territoriality (barriers, lights, trees, garden | Incivilities (litter, vandalism, dilapidation) |

Economic
Environment

Resources / vested interest (income, home ownership)

Community cognitions (Sense of community, community satisfaction/ confidence/attachment/ civic responsibility/ organizational efficacy, communitarianism

Community behaviours (visiting/ helping neighbours, discussing problems, volunteering)

Participation in Grassroots Community Organizations

Social
Environment

Demographic characteristics (race, length of residence)

Figure 6 An Ecological Framework for Participation in Grassroots Community Organizations (Perkins, Brown & Taylor, 1996, p. 89)

Participation and Power in Environmental Planning

Local community perspectives on participation in environmental planning

often differ widely from those of developers (Clunies-Ross, 1994). Local residents

value participation because it enhances their existing SOC and their life chances, and

provides an opportunity to have a meaningful say in the decisions that affect them

(Clunies-Ross, 1994; Rappaport, 1981). Planning authorities' tokenistic consultation

of residents may result in poor planning decisions, superficial short-term 'solutions'

to social problems, conflict and alienation (Clunies-Ross, 1994).

Arnstein (1969) identified the importance of differentiating between 'empty

rituals' of participation in planning and citizens having real power needed to affect

the outcome of the process. Drawing on Arnstein's ladder of public power of

decisions in participatory process, Sinclair and Diduck (1995) stated that public

involvement exercises typically involve informing, placation or consulting, rather

than offering any degree of citizen control, delegated power or genuine partnership

embodying shared decision-making. Figure 7 identifies some of the activities that are

often used to invite participation, or to discourage it completely.

Despite people's potential for a sophisticated reading and articulation of their

environments, they are often excluded from any meaningful involvement in planning

and design (Harrison & Howard, 1980). For instance, after comparing planning

preferences generated by neighbourhood advocates with those of an architects'

group, and examining the visual amenity of plans developed through advocacy

planning, Stamps and Miller (1993) concluded that members of advocacy groups did

not have the expertise to represent the public interest adequately. However, this does

not give recognition to the systemic obstacles faced by community groups, already

forced reactively to defend their position, in accessing sufficient funds and

appropriate information to participate as equals in formal environments, in which

dispassionate technical and legal jargon often serves to alienate them, and discount

their strongly held place attachments and experiential knowledge (Rich et al., 1995).

Degrees of citizen participation	8	Citizen control	
	7	Delegated power	
	6	Partnership	• Local council-resident collaboration
Degrees of tokenism	5	Placation	• Minor modifications of plans
	4	Consultation	• Information meetings organized by developers • Community consultation groups involving resident participation
	3	Informing	• Developer-run community newsletters
Nonparticipation	2	Therapy	• Community liaison positions funded by developers
	1	Manipulation	• Biased media coverage • Public relations • Resident action groups established by developers

Figure 7 Adaption of Arnstein's (1969) Ladder of Citizen Participation in
Planning, with Examples of Current Activity Areas.

From the above discussion it can be seen that a direct link exists between

meaningful citizen participation and empowerment. Indeed, settings which encourage

participation will also foster empowerment (Rappaport, 1987).

Empowerment

Kieffer (1984) described empowerment as a "...process of becoming, as an

ordered and progressive development of participatory skills and political

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understandings" (p. 17). He argued that developing 'participatory competence' (p. 18) requires not only gaining new skills, but also for individuals, groups and communities to reconstruct their notion of who they are, their world view, and their place in it – often in a politically repressive environment. He concluded that empowerment is a labour-intensive and long-term process of social transformation, achieved through many actions, or, as Weick (1984) termed it, 'small wins'.

A small win is defined as "...concrete, complete, implemented outcome of moderate importance... small wins are controllable opportunities that produce visible results" (Weick, 1984, p. 43). A small win may seem insignificant on its own. Yet a series of wins on small but important tasks may attract allies to one's cause, deter opponents, and pave the way for further wins, by acting to remove future obstacles. Once a small win has occurred, momentum is generated for solving further problems. New allies bring resources, ideas, contacts and solution; previous opponents change their behaviours. This encourages people to attempt slightly larger wins next time. Small wins also lead to greater stability over large wins, because each small win is an independent, incremental achievement, which cannot be undone by changes to political administration. However, preparation for a 'big win' may take considerable planning and preparation for a distant outcome fraught with uncertainty. If people work for goals which are achievable, immediate and specific, then a small win is probable, and likely to garner interest in attempting future small wins. Weick noted that by addressing each 'small win' on its own, people are able to strip each connecting part of the overall problem of its cognitive complexity and work on it independently. In addition, seeing the specifics in a failed attempt at a small win is a

source of learning and empowerment that might not be possible when an attempt at a large win fails.

From its grounding in efforts to achieve small wins directed at realizing sociopolitical participatory competence, it can be seen that the empowerment construct goes far beyond the more familiar constructs of self-esteem, self-efficacy, competency and locus of control, with which it is often equated or confused (Perkins & Zimmerman, 1995). Indeed, Rappaport (1987) stressed that "empowerment is not only an individual psychological construct, it is also organizational, political, sociological, economic, and spiritual" (p. 130). Perkins and Zimmerman stressed that it is vital that the construct not be taken out of context, used as a panacea or used with inadequate attention paid to its conceptualization and definition. The close link between empowerment, political power and participation in the political milieu must be acknowledged. In effect, empowerment needs to be viewed as "the manifestation of social power" (Speer & Hughey, 1995, p. 730).

As in the case of participation, the expression of empowerment varies across the range of domains and settings of people's lives. To be understood properly, empowerment needs to be approached from an ecological perspective, in that it should reflect the social contexts in which people, groups and communities seek to attain empowerment. For example, empowerment can be examined in the role relationships enacted between people, policies and programs over time, and in the context of the phenomena of interest (Rappaport, 1987).

Empowerment embraces empowering processes and empowered outcomes. Empowering processes focus on the efforts by individuals, organizations and communities to enhance their critical understanding of the sociopolitical

environment, gain access to, and control over resources. Empowered outcomes reflect the extent to which the consequences of these efforts may contribute to the attainment of people's empowerment goals (Zimmerman, 1995). Participating in community organizations might be an empowering process for an individual. At the organizational level, members could ratify empowering group processes such as collective decision making and shared leadership. At the community level, collective action would help community members to gain access to community resources (Perkins & Zimmerman, 1995). In contrast to empowering processes, empowered outcomes refer to the consequences of empowering processes. For individuals, empowered outcomes could include the perception of having gained control over certain situations and the attainment of participatory competence. Empowered outcomes for organizations could include enhancement of organizational effectiveness through network development and lobbying power. At the community level, empowerment outcomes might refer to the development of coalitions between organizations and the development of more and better community resources (Perkins & Zimmerman, 1995).

Central to a discussion of the contextual nature of empowerment is an exploration of its multi-level nature. The levels of analysis commonly adopted in the literature are psychological or intrapsychic empowerment; organizational empowerment and community empowerment (Perkins & Zimmerman, 1995). Rappaport (1987) argued that empowerment needs to be examined within and between these levels of analysis, and also at the overarching level of social policy. He stated that because of the ecological, multi-level nature of empowerment, an assumption needed to be made that, over time, particular levels of analyses would

impact on other levels. Empowerment activities and effects 'radiate' between levels and must be documented. In this sense, an examination of empowerment may be facilitated by consideration of Bronfenbrenner's (1979) ecological, multi-level, interconnected model of the social system, which described the 'nested' web of interrelationships within and between the levels of an individual person's immediate environment, the organizations and small groups in which they participate, the wider community in which they live, and broader society, such as the state and nation.

The typography of the social system proffered by Bronfenbrenner (1979), and the complex interrelationship of its component parts, serves to emphasise the multi-level nature of empowerment, and the complex interaction of its nested component levels. Psychological empowerment can be seen to have its correlate at the microsystem level of analysis, which can have expression in, and be affected by, events at the mesosystem level of organizational empowerment. In addition, the cumulative effects of elements of psychological and organizational empowerment may have an impact at empowerment at the community level of analysis, and even, eventually, at the macrosystem level of social policy and legislation. Indeed, as will be discussed below, Rich et al. (1995) argued that substantive community empowerment requires the endorsement of formal institutions of the type that create macro-level social policy. It follows that community-level empowerment phenomena might also 'radiate' to the lower levels of social systems and impact on organizational and psychological-level empowerment phenomena. Yet because the expression of empowerment is context-specific, one cannot say that community empowerment is merely the sum of empowerment phenomena at the psychological and organizational levels of analysis, or that organizational empowerment is the sum

total of individual members' efforts to achieve psychological empowerment within that organizational setting.

Understanding empowerment requires consideration of the myriad issues on which individual people are seeking to empower themselves; the many networks and organizations established to respond to shared issues locally, regionally, and internationally, in which people might participate to achieve individual as well as (or even instead of) higher-level empowered outcomes; the interactive ripple effect of these interventions at the exosystem and macrosystem levels; and, furthermore, the subsequent radiating impact of these higher order outcomes at the individual and organizational levels of analysis (Rappaport, 1987). For example, an organization may achieve a degree of empowerment even though some of its members may not, and even though it activities may not result in macrosystem-level change. Conversely, individual members of an organization or community may become psychologically empowered in spite of the poor functioning of an empowerment-oriented organization to which they belong. Therefore, "empowerment theory assumes that understanding persons, settings, or policies requires multiple measures from differing points of view and at different levels of analysis" (p. 139).

The nested, ecological nature of empowerment will need to be taken into consideration when reviewing the discrete levels of analysis of the empowerment construct, which are elaborated in some detail below. It should be noted that research in this field is still in its infancy; this section by necessity must rely heavily on published attempts to document psychological empowerment made largely by Zimmerman (1990; 1995; Zimmerman & Rappaport, 1988).

Psychological Empowerment

Psychological empowerment – the individual's expression of empowerment – explores the ways individuals develop and express their competence and efficacy through participating in social and political change. It has been described as "the connection between a sense of personal competence, a desire for, and a willingness to take action in the public domain" (Zimmerman & Rappaport, 1988, p. 725). Psychological empowerment differs greatly from traditional, individualistic concepts of empowerment, which treat it primarily as a personality trait (Zimmerman, 1990). Psychological empowerment is not a passive, inert, intrapsychic construct: it is "rooted firmly in a social action framework that includes community change, capacity building, and collectivity" (Zimmerman, 1995, p. 582). The construct may take account of intrapsychic factors such as a person's locus of control, motivation to control, and self-efficacy. However, Zimmerman (1995) argued that contextual factors are as crucial to empowerment theory as are intrapsychic factors. He viewed psychological empowerment as an interaction between intrapsychic and environmental phenomena.

Three underlying assumptions have been identified relating to the contextual nature of psychological empowerment. Firstly, psychological empowerment takes different forms for different people, according to their perceptions, skills, and behaviours. Secondly, different settings will require differing beliefs, competencies and actions. Some people may be able to generalize their psychological empowerment across life domains, such as family, recreation, and work. For others, psychological empowerment will be domain-specific. Thirdly, psychological empowerment will also change over time. People may feel empowered on one

occasion and disempowered on another. As such, psychological empowerment must be seen as an open-ended construct that cannot be reduced to a standard operational definition (Zimmerman, 1995).

Psychological empowerment is seen to contain an intrapersonal component, an interactional component, and a behavioural component. The intrapersonal component relates to "how people think about themselves and includes domain-specific perceived control and self-efficacy, motivation to control, perceived competence, and mastery" (Zimmerman, 1995, p. 588). The intrapersonal component thus encompasses traditional notions of individual power. It is a prerequisite to learning about how to influence a desired outcome, or to engage in such behaviour. The interactional component of psychological empowerment refers to the development of critical awareness about one's sociopolitical environment, and how to act strategically. Zimmerman noted that in order for people to change aspects of their environment, they need to understand its underlying ideological norms and values, the causal agents that may have helped to create and maintain the current situation, and the options afforded by the particular context. In addition, they will need to learn how to obtain desired resources, and develop the necessary resource management skills, such as decision-making, problem solving, and self-advocacy. Finally, the behavioural component refers to actions that people take in order to have a direct impact on the outcomes of events. Therefore, a person with high psychological empowerment for a given context believes that they can have some influence over that context (intrapersonal component), understands how the system works in that context (interactional component) and acts to exert control within the context (behavioural component).

Organizational Empowerment

An empowering organization will be implementing structures and tactics that develop members' skills and create the supportive organizational climate needed to embark on community change. Empowered organizational outcomes resulting from members' activities may include expansion of influence, development of networks, attainment of resources, and an attendant expansion of organizational effectiveness (Zimmerman, 1995). Many organizational empowerment initiatives take a collective form, with potential benefits to all members. Organizations which embrace an empowerment ideology will be more likely to foster organizational and psychological empowerment, than organizations embracing a helper-helped ideology (Rappaport, 1987). Members of empowering organizations will view their participation as providing an instrumental link between their own psychological empowerment, and achieving a concrete organizational and community outcome (McMillan, Florin, Stevenson, Kerman, & Mitchell, 1995). Empowering organizations can take many forms, for example, a community-based management committees (Gruber & Trickett, 1987), mutual help groups (Cox, 1991), grass-roots coalitions (McMillan et al., 1995), and religious fellowships and support networks (Maton & Salem, 1995).

A feature shared by all empowered organizations is their acquisition and exertion of social power, which is derived from the strength of interpersonal relationships (Speer & Hughey, 1995). Power is a concept fundamental to organized human relations, which is essentially the ability or potential to influence others (Manz & Gioia, 1983). Speer and Hughey argued that community organizations are empowered only to the extent that they can exercise three instruments of social power. These are the ability to: "...reward or punish community targets, control what

gets talked about in public debate, and shape how residents and public officials think about their community" (p. 732). To amass power in the globalized, corporate environment depicted by Pilisuk et al. (1996), it is essential that groups be able to acquire information; obtain favourable coverage through corporatized media; claim their expertise and legitimate authority; and encourage the participation of fellow residents overwhelmed with media messages and the stress of attending to modern urban life (Pratkanis, & Turner, 1996; Speer & Hughey, 1995).

For organized settings to be empowering, they will need to embrace empowering features. Organizational empowerment has been found to hinge on the effectiveness of group coordination, the level of motivation, and the extent to which members identify with the group (Bettencourt, Dillmann, & Wollman, 1996). Maton and Salem (1995) identified that empowering organizations embodied a shared belief system (expressed in their vision, ideology, values and culture) which inspired members' personal growth, encouraged them to develop and share their strengths through collective action and reflection, and to view themselves and their involvement as part of a broader mission. Secondly, members were provided with multiple opportunities for participation and personal growth, and were encouraged to take on multiple roles. This served to acknowledge, harness and extend their skills, responsibility, personal and social competence. Much of this encouragement was provided by leaders, who acted as inspirational role models. Leaders were talented in working with others, and in sustaining the organization. They were also committed to sharing their leadership widely, to encourage the development of new leadership opportunities. Finally, support systems ensured that members could obtain a wide range of support from many sources, including their peers. This enabled members to

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develop a sense of community: not only within the organization, but also beyond it, as they extended their supportive relations to other life settings. Members' emotional intelligence was thus cultivated (Consortium for Research on Emotional Intelligence in Organizations, 1998).

Empowerment in Grassroots Organizations

According to Kieffer (1984), grassroots organizational empowerment occurs over four broad developmental stages, each of which might last at least a year. He defined the first stage as the era of entry. Following the experience which triggers them into action – the 'mobilizing episode' – people begin to share and explore their feelings of alienation, loss, and despair in relation to their experience of disempowerment, and begin to explore their emerging sense of political awareness. Emphasis must be placed here on the crucial role of key community leaders or referents, who, as 'early adopters' within the community (Freire, 1970; Huygens, 1988), encourage their peers to consider taking action. These are people who have some knowledge of community resources and how to get them, who have adopted new beliefs and norms, and who have visibly begun to engage in action as part of their new-found awareness and identity. During the second stage of the empowerment process, the 'era of advancement', people develop relationships with supportive outside mentors, and also cultivate supportive peer relationships with their peers in an organized setting. The mentor assists participants to get organized and develop a repertoire of skills through praxis. As a result of these developments, people achieve a critical insight into the nature of political and social systems and their role in them (Kieffer, 1984).

The third stage of Kieffer's (1984) model is known as the 'era of incorporation'. During this period of maturation, people integrate their senses of self and agency in relation to the sociopolitical world in which they live. They learn to confront the painful reality of the entrenched nature of the structural barriers to empowerment. In addition, they consolidate their organizational, leadership, and survival skills. They also must come to terms with the conflicting demands inherent in community organizing. In the fourth and final stage, the 'era of commitment', people's empowering knowledge and skills become integrated into the reality of everyday life. People now see themselves more as creators of change, and their own history, rather than being passively subjected to un-named forces outside their control.

In navigating Kieffer's (1984) organizational empowerment continuum, members of effective grassroots groups have been found to employ six basic steps to their organizing activities (Perkins et al., 1996). The first step is to conduct a needs assessment to identify shared problems in the community or organization. Secondly, these problems must be turned into tangible, specific issues. They must be prioritized, and one selected which has a chance of a small win, and which attracts people's participation. Third, a flexible strategy and specific tasks must be developed to address this particular issue. Fourth, an adequate number of members must be recruited to engage in specific tasks for each strategy. The fifth step is to evaluate the outcome of each strategy. Finally, through praxis, members must direct the insights they gain back into the grassroots group, by adjusting their strategy or developing new ones.

<u>Action research approach</u>

Praxis forms a core component of the broader concept of action research (AR), of which it is suggested that effective grassroots organizing forms a part. AR is characterised by a continuing, cyclic group process of diagnosis, analysis, planning, action, observation, evaluation and reflection, and revised planning (Chesler, 1991; Wadsworth, 1991). Through AR, the learning that occurs is often novel, encourages lateral thinking, and furnishes participants with a more holistic view of their situation (Whyte, Greenwood & Lazes, 1991; Zimmerman, 1995). By stimulating empowering activity, AR approaches to grassroots organizing have been found to enable groups to overcome a common challenge, namely the "lack of participation and the passivity of the members" (Lavoie, 1984, p. 174).

Street (1996) identified a range of empowering research activities that members of grassroots environmental organizations could conduct using an AR approach. These included: conducting a reconnaissance of the situation as part of a preliminary investigation; reviewing literature relevant to the environmental issue, investigating the history of the issue in order to uncover the interests of particular stakeholders, and collecting evidence relating to participants' situation. She stated that by participants describing their own ecological experiences in relation to the issue, and using this information as a resource, the group could accumulate locally relevant data, as well as validate members' lives. It can be seen that these are activities which can foster psychological and organizational empowerment, as well as provide members with a much deeper understanding of the broader community and societal context in which they are operating. As such, AR is considered a vital strategy in the broader pursuit of community empowerment.

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Community Empowerment

Community empowerment has been defined as the organized efforts of people working together, "to improve their collective lives and linkages among community organizations and agencies that help maintain their quality of life" (Zimmerman, 1995, p. 582). Zimmerman stated that community empowerment is not only related to the development of knowledge and skill, but also reflects a geographical or relational community's capacity to gain influence and control over consequences affecting its members and the wider social system. These consequences may be positive (such as having influence over the way people vote for elected officials), or negative (such as negative media coverage).

The attainment of community empowerment will also reflect the interaction between the characteristics of individual participants, organizational factors, and environmental, or structural, factors. Individual characteristics include people's self-confidence, intellectual resources – such as having sufficient education to be able to respond knowledgeably to technical issues, personal skills, knowledge, leadership, and access to finance. Organizational factors encompass organizational structure, and strategic planning effectiveness. Environmental factors involve the nature of the sociopolitical environment, an enveloping culture which tolerates or promotes dissent and collective action, the extent to which community organizations can influence the agendas of official meetings, and the capacity of formal institutions to respond to citizens and involve them in decision-making (Fawcett, Seekins, Whang, Muiu, & Suarez de Balcazar, 1984; Rich et al., 1995).

Proactive and Reactive Community Empowerment

An additional feature of empowerment is that its attainment can be reactive or proactive (Rich et al., 1995). Proactive empowerment relates to activities that community members choose to engage in as a creative exercise, such as a community festival, or training to improve community skills. These activities serve to enhance the community's existing resources, networks, and strengths, and encourage members' ongoing psychological and organizational empowerment (Rappaport, 1981).

In contrast to the more affirmatory nature of proactive empowerment, reactive empowerment refers to skills and attributes that an individual or community might acquire in responding to an external threat. Rich et al. (1995) discussed community empowerment within the context of reacting to an external threat, such as proposals to establish environmental hazardous toxic waste sites. Such threats can subject members of a local community to "the threat of physical harm, financial ruin, disruption of social networks, and a loss of personal control" (p. 658). They noted that because of the nature of many environmental threats, individuals and the community as a whole are often disempowered. The nature of environmental hazards tends to crush established ways of responding collectively to deal with threats. Furthermore, people of low socioeconomic status are often disproportionately affected. If citizens have to devote time, resources and energy developing knowledge and skills they never wanted in order to deal with the threat, then they might regard their community response as a defeat, even though the observer might view their social action as being extremely empowering. Responding to proposals to establish a

toxic waste dump can leave citizens exhausted and stressed, even though they may succeed in preventing such a facility.

Rich et al. (1995) developed a taxonomy of four types of responses to an environmental threat that could be either disempowering or empowering for the affected community. These domains included: (i) formal; (ii) intrapersonal; (iii) instrumental; and (iv) substantive empowerment. The authors noted the importance of distinguishing between these domains, as people can achieve some forms of empowerment but not others. This will create differing power relations, depending on the interaction between domains. They suggested that community empowerment requires empowered outcomes in all four domains.

Formal empowerment relates to institutionalized mechanisms for public participation. Depending on their use to encourage meaningful citizen participation, formal process may or may not be enough to afford citizens control over their situation with respect to specific issues. For example, formal processes can be used to drain people's energies in protracted formal hearings, leaving them too exhausted to try other means which might produce empowered outcomes – such as social action. Formal empowerment may lead to the second domain, intrapersonal empowerment, if the experience enhances their self confidence and competence. Instrumental empowerment reflects people's "actual capacity for participating in and influencing a decision making process" (Rich et al, 1995, p. 667). This capacity is affected by the extent to which people can respond knowledgeably, assertively and persuasively in a formal setting – assuming that such opportunities exist. Yet even when formal participation is possible, many people will be disempowered by the technicalities of the formal setting, such as obfuscating legal and technical jargon.

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However, mobilized, empowered grassroots organizations might be able to present a united approach drawing on members' collective efficacy; employ their own experts; or use alternative means such as social action, even in the absence of opportunities for formal participation.

Substantive empowerment, the final domain, refers to "the ability to reach decisions that solve problems or produce desired outcomes" (Rich et al., 1995, p. 668). This form of empowerment requires the collaborative development of creative solutions that have long-term viability and do not simply result in the disempowerment of another community elsewhere. Since communities comprise not only local residents, but also formal institutions established for the common good, then full community empowerment can only be achieved by involving stakeholders occupying positions at various levels of the social system, from the individual to the institutional. Civic institutions are needed that can provide "an institutional basis for coordinating a response" (p. 665), especially in cases where individuals are pitted against the interests of powerful organizations. If formal institutions cannot or will not respond, then citizens may need to take extreme measures to be heard, such as costly legal action or civil disobedience.

Fawcett et al. (1984) noted that collaborative partnerships between grass-roots members and allies throughout different levels of the social system serve to "facilitate transactions between people and environments, helping influence systems and mobilize resources" (p. 678). Collaborative partnerships thus act as community catalysts: they produce a shift in the relations between parties, and bring about change in social institutions and community norms. Initiatives that involve some

stakeholders, but not others, may be effective only in the domains which reflect the participation of these stakeholders.

Community environmental empowerment.

Community empowerment will be achieved in relation to environmental issues if residents' efforts result in ecologically sustainable decisions being made. These decisions will solve or resolve the environmental problem or issue in accordance with scientific advice. Because they will have been involved meaningfully in the decision making process, the people most affected by the environmental hazard will consider the decisions as just, and will agree to abide by them. However, decisions that deny citizen input could well result in an "environmental fiasco" (Rich et al., 1995, p. 668).

Perkins and Zimmerman (1995) highlighted the importance of developing specific, contextually-relevant operational definitions of empowered outcomes, which would enable a thorough, detailed study of the effects of empowerment-oriented interventions and their associated empowering processes across levels of analysis. Figure 8 summarizes various empowering processes and empowered outcomes at different levels of analysis, as described in the literature.

Conclusion

This chapter has highlighted the role of the physical and social context in which community participation occurs. A shared psychological sense of community, be it geographical or relational, can serve as a stimulus to collective action; however, it can also emerge through participation. It has also been suggested that in order to participate effectively in grass-roots action, people need to hold positive expectations

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Level of Analysis	Empowering Processes (focus on efforts)	Empowered Outcomes (results of efforts)
Individual	• Participation in empowering community organizations • Engaging in social critique • Reflecting on life experiences • Learning how social system works in particular context • Learning how to obtain resources • Developing skills to manage resources	• Intrapersonal empowerment: perception of having gained control over certain situations • Instrumental empowerment: gaining sociopolitical awareness • Redefinition of self and personal history • Taking action to influence events: gaining participatory competence
Group/ organization	• Initial encouragement from community leaders and 'early adopters' • Collaboration with mentors • Productive group meetings • Collective decision-making • Shared leadership • Peer support • Collective action • Participation in formal decision-making processes	• Result of actions taken by group members • Network development • Lobbying power • Secured resources • Enhanced organizational vision, ideology, values, and culture • Improved organizational structure • Enhanced organizational effectiveness • Instrumental empowerment
Community	• Development of coalitions • Stakeholders involved from across levels of social system • Institutional support	• Development of more and better community resources • Improved collective lives • Substantive empowerment: ecologically sustainable outcomes

Figure 8 Empowering Processes and Empowered Outcomes (Adapted from Balcazar et al., 1994; Kieffer, 1984; Perkins & Zimmerman, 1995; Rich et al., 1995; Zimmerman, 1995)

about the instrumentality of their actions in that particular context. They must believe that they have sufficient self-efficacy, political efficacy, and collective efficacy (Bandura, 1982). Some of these beliefs might be held initially by key referents, or 'early adopters' within the community (Freire, 1970; Huygens, 1988). Outside mentors may encourage others to form these expectations by helping them gain participatory competence by attempting a series of small wins (Kieffer, 1984).

To be able to make the most of their submissions at formal hearings, grassroots group members need to be able to analyse the many sources of power of

their opponents, and to identify their own (Freire, 1970; Manz & Gioia, 1983; Newman 1994). In particular, residents need to gain skills in forming and running grassroots groups, and the associated tasks of investigation, decision-making, communications skills, and building networks and coalitions. They also need to gain skills in advocating their position, including public speaking skills, media skills and negotiation skills. Residents need to learn ways of arguing their case in the technical language currently used by decision makers in formal settings, that limits meaningful grassroots participation. Action research is considered a highly empowering strategy for organizations to adopt. The challenge is to develop environmental education strategies and content which match adult learning styles, and which will facilitate the necessary levels of community participation, political action, and advocacy skills.

CHAPTER 4

THE ROLE OF CRITICAL ADULT EDUCATION IN HEALTH

EDUCATION: IMPLICATIONS FOR ENVIRONMENTAL EDUCATION

Introduction

During the 1980s, health increasingly was acknowledged as both an

environmental and social problem (Brown, 1994). Over the course of several

decades, many practitioners of health education have come to understand what

environmental educators are currently struggling to appreciate. They have learned

that to encourage a sea change in public health-related behaviour requires not only

education strategies targeted at individuals, but, more fundamentally, educative

efforts to involve adult citizens in their own psychological and collective

empowerment. To succeed in promoting widespread health behaviour change

requires addressing the political root causes of poor public health. Moreover, by

taking an ecological approach to the promotion of health, educators have been able to

identify the connection between the quality of the environment and human health,

and the need for action on each activity to be integrated (Brown, 1994; Farrant,

1991).

In a trajectory that mirrors adult education theory's transition from

behavioural and cognitive approaches to social constructivism, health education has

progressed from providing 'expert' information en masse to a passive citizenry, to an

appreciation that public health and community empowerment are closely interrelated.

The recently emerged trend of health promotion seeks to involve communities in

identifying issues and developing local empowering responses to redress underlying

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imbalances in access to resources and power that can damage the health and quality of life of residents. Community empowerment initiatives have drawn directly on critical adult education principles in order to involve and resource adult members in grassroots organizing. For example, peer education strategies have been developed to encourage adults to discuss the cultural roots of beliefs and attitudes and their attendant behaviours; develop new community norms; foster individual and collective behaviour change; strengthen community competence, and encourage grassroots advocacy efforts to improve policy and legislation (e.g., AIDS Bureau, 1994; Parnell, 1989). This chapter will explore the development of health education paradigms and strategies; explore the parallels to EE; investigate models of empowering adult education discussed in the health promotion literature; and recommend an adult EE model that integrates these components.

Trends in Health Education and Parallels to EE

Medical Model Approach

Health education has gone through several phases this century (Petosa, 1984). Initial medical-model conceptions of health education took the form of brochures, public announcements, media campaigns or mass immunization programs. Educators considered the provision of accurate information by an authority as sufficient to increase people's health knowledge, challenge their attitudes, and change their behaviour in order to prevent disease (Abrams, Edler, Carleton, Lasater, & Artz, 1986; Mikhail, 1981). Abrams et al. noted that these approaches can reach many people at relatively low cost per person, heighten public awareness and create a "motivational climate for change" (p. 29). Despite the provision of free or cheap

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health programs, only small numbers of people made use of them (Mikhail, 1981).

According to Abrams et al., this blanket approach is limited in that it cannot provide

explicit training or support the maintenance of new behavioural skills. They observed

that many at-risk people will ignore a message that has not been delivered personally.

One can observe an immediate parallel between the medical model of health

education and the instrumentalist, 'expert' approach to EE, including mass-media

campaigns. Neither model encourages the recipient of expert advice to develop their

own initiative or commitment, or form their own judgements based on a substantive

exploration of the underlying sociopolitical dimensions of the issue (Malcolm, 1992,

1997; Robottom & Hart, 1995).

Psychosocial Approach – the Health Belief Model

By the 1950s, health educators came to realize that people act on what they

believe to exist, regardless of whether their beliefs correspond to professional

opinion (Mikhail, 1981). Educators increasingly recognized the role played by broad

social, historical, economic and other psychosocial factors in contributing to disease

and mortality rates, yet they continued to attempt to influence individual attitudes

and behaviours (Petosa, 1984; Ross & Mico, 1980). Educators sought to develop

individualized programs for specific target populations, in acknowledgement of

theories of personality development, attitude formation and perception. Strategies

also endeavoured to accommodate theories of self-actualization and creativity, when

considering factors such as an individual's intellection and emotional growth, and

self-determination. In addition, health educators drew on theories of motivation,

experiential learning, group dynamics, and problem solving to facilitate individual

and collective behaviour change (Ross & Mico, 1980).

The widely-used Health Belief Model (HBM) was developed in the early 1970s to accommodate the psychosocial factors that would lead people to decide to take action to prevent, detect and treat diseases (Janz & Becker, 1984). Similar trends can be observed in highly pervasive EE research seeking to develop predictive models of 'responsible' environmental behaviour through the attempts to identify key psychosocial predictive variables (e.g., Hines et al., 1986/87; Hungerford and Volk, 1990; Sia et al., 1985/86).

Through its phenomenological perspective, the HBM considered that people would set goals according to their perceived likelihood of achieving them and the value they placed on the goals. Cultural factors, as well as individual values, were seen as influencing people's goals to perform at a particular level of efficacy (Ross & Mico, 1980). People would have to be psychologically 'ready' to act in accordance with their health goals, in that they would need to see themselves as being at risk, and believe that the condition could have serious consequences for them. They would need to desire to improve their health, and hold a belief that their personal actions would lead to an improvement. Furthermore, the perceived gains of taking action would need to outweigh the perceived costs or barriers involved in taking such action. The HBM also suggested that 'cues for action' are needed to stimulate a person's decision-making process. These cues might reach a person internally – such as through symptoms, or externally – such as through public education campaigns, health workers, or peers (Janz & Becker, 1984). As discussed in Chapter Two, the predictive importance of social and peer influence on environmental behaviour was identified (Horsley, 1977; Sia et al. 1985/86; Sivek & Hungerford, 1989/90).

An impressive body of research supports the HBM. Other constructs can be incorporated into the HBM, such as locus of control (Lefcourt, 1976; Rotter, 1971), and self-efficacy (Bandura, 1982), which further enhances its utility (Janz & Becker, 1984). However, Janz and Becker stated that the predictive power of models such as HBM are restricted to explaining the variance of people's health behaviours only in terms of their attitudes and beliefs. Many behaviours operate at a highly habitual level, below the level of conscious, psychological decision-making processes. In addition, many health-related behaviours are adopted simply for social reasons -- for instance, peer approval, fashion, and conformity. Indeed, many media campaigns have drawn implicitly or explicitly on these factors in order to communicate their message. Furthermore, for many people, health is not a high priority, which tests a fundamental assumption of the HBM.

Another flaw of the HBM is its failure to deal with the tremendously reinforcing operant aspects of much unhealthful behaviour, that constitute a contingency trap (Nevin, 1991). The HBM deals with behaviour change as a result of cognitive appraisal of long-term threat, rather than accounting for the reinforcing effects of immediate gratification that accompany unhealthful behaviour. Solomon, Turner and Lessac's (1968) study of the effects of delayed punishment suggested that behaviours that carry immediate rewards but delayed punishment will be much harder to resist that behaviours which carry an immediate punishment. Nevin (1991) stated that social traps differ from individual contingency traps in that whilst providing immediate individual reinforcement, they entail delayed aversive, collective consequences. For example, the motor car affords immediate personal convenience, yet provides delayed and defrayed aversive consequences for the entire

community in terms of public health costs through asthma, death and disability, and excessive noise and loss of public space and park land to freeways and roads (Engwicht, 1992).

Proponents of the psychosocial approach also err in assuming that all people can easily 'choose' healthy lifestyles. Ewles and Simmett (1992) argued that health is largely affected by social, economic and environmental factors, the control of which often lie beyond individuals or groups. An individual's health-related behaviour may be substantially hampered by mitigating circumstances, such as being economically forced to live in a polluted environment or to take on physically hazardous work. The presence of social cues for action, seen as critical in encouraging healthful decision-making, may reflect middle-class cultural beliefs and values of planning for the future, and postponing immediate gratification in favour of long-term rewards (Rosenstock, 1974). Such social cues might not be widely prevalent in communities of lower socioeconomic status, in which case the HBM would not be a strong predictor of health behaviour. Indeed, in a disempowered community, collective, subjective norms may exist which reinforce the belief that attempts to take action on a particular issue will be futile (Ajzen, 1988). No matter how motivating and educational individual or small group programs are, individuals are "thrown back into a social climate and physical environment filled with negative health practices" (Abrams et al., 1986, p. 30). For example, people participating in EE programs may return to a social environment in which the overarching cues for action, as propagated by advertising, encourage people to make consumer decisions based on immediate personal gratification, with little heed to investigating the environmental and ideological credentials of the products or services being promoted (King, 1994).

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A related threat is that the presence of negative community attitudes ascribed to particular behaviours or to types of people most readily identified as enacting these behaviours. For example, the HIV/AIDS pandemic has involved issues such as stigmatized sexual and drug use behaviour, the legality of such behaviour, and negative cultural stereotypes about minority communities. Many people have rejected health information and put themselves at risk of contracting HIV, for fear of being associated with ostracized minorities and devalued behaviours. As a result, early AIDS education had to deal not only with conveying information, but also with changing public opinion, and changing laws which have denied certain groups the right to dignity and self expression (Brass & Gold, 1985; Gregg, 1987; Jones, 1986; Preston, 1984; Scheer, 1987).

In the case of the environmental movement, a certain negative stereotype of 'environmentalists' has meant that some residents acting on local environmental issues have had to attempt to counteract negative publicity generated by their more powerful opponents in order to portray them as disruptive activists (Wade, 1991). Other groups have sought to dissociate themselves from the environmental movement, or even to identify their issue as an environmental one (Carlyon, 1998). This has possibly led protagonists of urban amenity action groups to gain only a partial understanding of the deeper environmental and cultural issues with which they have been dealing (Butterworth & Fisher, in press; Weintraub, 1995).

Health educators have also learned that people are likely to react negatively to health campaigns that might be construed as "propagandistic, manipulative, coercive, politically or commercially directed, threatening or paternalistic" (Green, Kreuter, Deed, & Partridge, 1980, p. 9). Pushing people to change their lifestyle may result in

people feeling angry for being told what to do, or guilty for not complying (Ewles &

Simmett, 1992). In the case of mass-media environmental campaigns, low rates of

individual behaviour change reflect the nullifying effect of the paradox inherent in

the corporate message, which exhorts people to make minor adjustments to their

consumption patterns whilst continuing to uphold an unsustainable economic and

cultural system (Hawken, 1993; King, 1994).

<u>The Emergence of Health Promotion</u>

In accounting for the limitations of psychosocial models, health educators

realized that a solution to the seeming lack of success of conventional health

education models in achieving systemic change, was for peer groups, subcultures,

and increasingly, entire communities, to take responsibility for the wellness of their

members. The most recent health education paradigm, health promotion, is an

overarching paradigm of community-based, critical adult learning, advocacy and

empowerment, which could well serve environmental educators. This approach

acknowledges health-related behaviour as being greatly affected by social, economic

and environmental factors, which are often beyond the realm of individual, or even

collective, control. Social factors include cultural norms, social cues, social

consequences, living conditions, employment and other circumstances. At its most

proactive, health promotion provides an example of the link between an active,

democratic citizenry and empowering public policy:

> Those using this approach will value their democratic right to change society,
>
> will be committed to putting health on the political agenda at all levels and to
>
> the importance of shaping the health environment rather than shaping the
>
> individual lives of the people who live in it (Ewles & Simmett, 1992, p. 36).

Community ownership and control over defining its own needs and terms of reference are central features of health promotion (Ewles & Simmett, 1992). True health promotion requires a critical analysis, and acknowledgement, of the imbalance of power, ownership and control, and the vested interests that maintain this imbalance. Communities must be supported in their empowerment-oriented health initiatives; these initiatives also must be accorded endorsement by professionals. In its most proactive form, health promotion encourages communities to define their own health priorities and to address these issues in ways they see fit (Farrant, 1991).

In 1986 the World Health Organization proposed a single strategy to deal jointly with health and environment. The Ottawa Charter for Health Promotion acknowledged the crucial role of equity and social justice in both environmental and health issues (Brown, 1994; Farrant, 1991). Brown stated that the Charter's social change framework contains five strategies promoting: (i) integrated public policy, (ii) enhanced environments, (iii) community action, (iv) skilled individuals, and (v) re-oriented services. Although originally developed to address health concerns, Brown noted that these five strategies also would encourage environmental sustainability. In that year, the Bruntland Report of the World Commission on Environment and Development advocated a similar strategy.

Figure 9 presents Brown's (1994) summary of parallels between the Ottawa Charter and the Bruntland Report. It can be seen that both models recommended both individual and collective responses to health and environmental issues, including personal behaviour change and community advocacy. One can observe immediately a sociopolitical dimension to the analysis of individual and collective health- and environmentally-related behaviour change.

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	Coordinating Policy	Enhancing Environment	Enabling strong community action	Strengthening individual skills	Reorienting services
OTTAWA CHARTER:					
Health Goals	Equity; Social justice	Monitoring sustainable social environment	Social advocacy	Lifestyle changes	Treat causes, not symptoms of disease
Environmental Goals	Global sustainability	Monitoring sustainable physical environment	Issues advocacy	Individual changes in resource use	Treat origins, not outcomes of environmental pressures
BRUNTLAND ACTION PLAN:					
	Investing in an equitable future	Assessing environmental risks	Dealing with the risk through the whole community	Making informed individual choices	Getting at the sources of risk

Figure 9 Matching Public Health and Environment Frameworks to Health and Environment Goals (Brown, 1994)

The Role of Peer Education in Health Promotion

Peer education and advocacy training are examples of health promotion strategies which have been employed by both grass-roots groups and proactive health workers and agencies. Peer education theory recognizes the role of peer support in modelling and reinforcing attitudes, values, and behaviours, and promoting new sub-cultural or community norms. It acknowledges the importance of interactive group process in encouraging peer support (AIDS Bureau, 1994; St. Pierre, Schute, & Jaycox, 1983). Peer education attempts to draw on people's sense of shared identity as a tool to achieve behaviour change amongst group members (Maclean, 1993). Social learning theory plays a large role in peer education (Klein, Sondag, & Drolet, 1994), in which behaviour is seen as a function of the social environment,

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observation and modelling, the learner's expectancies of reinforcement, perception of self-efficacy, the value placed on reinforcement, and the perceived credibility of the model (Diamond, 1974; Horsley, 1977; Miller & Dollard, 1945).

Peer education provides a bridge between the social control agenda behind some health education approaches, and the more political aspect of health promotion. In terms of the former, government agencies have used peer education with adolescents in formal settings (e.g., Miller, 1996). Secondly, government-funded, but community-managed agencies have trained adult members of minority communities to become peer educators, as in the case of HIV education (Parnell, 1989). Thirdly, members of politically oriented grassroots groups have used peer education strategies to mobilize their members to engage in social action over discriminatory health and legal policy, such as in the case of ACT UP, the AIDS Coalition to Unleash Power (Sadownick, 1996). Peer teaching in formal school settings is not a new phenomenon – Aristotle is reported to have used students to teach other, younger students. Peer education also occurs informally between adults as a part of everyday discussion and problem-solving (Paterson, 1970; Wagner, 1982).

Peer education strategies have been used widely with adolescents and young adults in formal educational and other settings. Young people have trained to take on a peer leadership role in promoting safe behaviour in relation to a wide range of issues. These include drug use (Klepp, Halper, & Perry, 1986; Miller, 1996), smoking (Perry, Telch, Killen, Burke, & Maccoby, 1983), alcohol consumption (Perry et al., 1989), sex education (Zapka & Mazur, 1977), nutrition (Gates & Kennedy, 1989) providing orientation and support to new students (Russel & Thompson, 1987), and learning conflict resolution skills (Giuliano, 1994). Peer

education has provided participants with the chance to take on meaningful roles, including that of helper. Enhanced lifestyle skills and tolerance have resulted from participation in peer education (Milburn, 1995).

Despite its successes, some government sanctioned peer education, especially that aimed targeting youth sexuality or drug use, has been aimed more at using peer groups to control young people's behaviour (Maclean, 1993), which Milburn (1995) considered an ethical problem. She noted that much officially-sanctioned peer education, despite drawing on group dynamics and fostering group skills, has focused on individual behaviour change, rather than encouraging group-level critical reflection and social action. Milburn argued that peer educator trainees have tended not to be consulted for their expertise, or left to engage with their own organic communities. She added that these programs have often been implemented for their cost-effectiveness in using unpaid adolescent educators.

Fabiano (1994) detected similar limitations in campus-based peer education programs aimed at young adults in the United States, and advocated a more holistic, group-level notion of peer education. As such, it can be seen that much peer education aimed at adolescents and young adults is at odds with the rhetoric and empowerment philosophy of health promotion. These critiques illustrate that community-developed, conducted and controlled peer education, with a focus on critical adult education, have greater potential for achieving community empowerment, than do government and institutionally sponsored programs.

Peer education and adult education.

Adult peer education involves community members creating and implementing education for their peers. Peer education acknowledges the role of peer

influence, the power of peers as each others' teachers, and the importance of people participating in the political life of the groups to which they belong (AIDS Bureau, 1994). Peer interaction can embody open and genuine discussion in which participants listen to, and learn from, each other, and make sense of their experiences (Foley, 1995b). With effective facilitation, peer learning group can provide "powerful support for adults who wish to experiment with ideas, opinions, and alternative interpretations and to test these out in the company of others engaged in a similar quest" (Brookfield, 1986, p. 135). Effective, non-judgmental peer learning groups can provide powerful motivators and reinforcements to learning, as well as providing the setting for robust debate, exploration of strongly opposing positions, and the sharing of vulnerabilities.

In the case of HIV/AIDS, the San Francisco (or Morin) model of health education successfully extended the sociocultural dimensions of the HBM by recognizing the potential for a person's peer group to make the impact of the health message more immediate, model new behaviours, express new cultural norms, and support members to adopt new behaviours (Amory, 1990; Puckett & Bye, 1987; S. Morin, personal communication, 27 May, 1998). The San Francisco model contends that people must come sequentially to hold five beliefs about their own behaviour in relation to HIV/AIDS, if they are to adopt safe behaviours: (i) HIV/AIDS must be seen as a personal threat; (ii) people must believe that they can take personal measures to prevent or reduce the risk of catching HIV; (iii) they must believe that they are capable of achieving a low-risk lifestyle; (iv) this new lifestyle must be seen as still being satisfying; and (v) they must believe that they will find support from their peers for adopting and maintaining this lifestyle change. From its beginnings as

a series of community workshops billed as a 'community experiment in communication' using small peer discussion groups of gay and bisexual men in San Francisco, the STOP AIDS project expanded to involve thousands of participants across the USA (Flowers et al., 1991; 1994; Miller, et al., 1990; Puckett & Bye, 1987), and was adapted for use in Australia (Butterworth, 1988; Parnell, 1989).

Early Australian HIV peer education programs involved interested members of the gay community training to become volunteer peer educators, and working in pairs to conduct peer education programs of several weeks' duration. Ongoing supervision, support and debriefing was provided by AIDS Council staff. In a pilot evaluation of an inaugural program, participants reported enhanced levels of knowledge, skills, and sense of community, and adoption of a protective lifestyle (Butterworth, 1988).

After taking part in these peer education programs, many participants engaged in training to establish new peer education programs, joined or formed mutual help groups, and/or participated in community advocacy and social action aimed at changing social policy and legislation. It can be seen from inspection of the San Francisco model's five tenets that political engagement was not an explicit goal of participation in the HIV education programs. Rather, the model was used to enhance the resilience and cohesion of a community under political and epidemiological threat, by focussing on self and collective care. Australian participants in government-funded, AIDS Council peer education have certainly discussed the existence of other organizations that they could join in order to participate more closely in the political debate surrounding the HIV epidemic. However, the focus of these peer education programs has been largely apolitical.

Contact with a long-serving Australian AIDS Council educator suggests that Council programs remain largely so, with 'little of Freire's work to be seen' (K. Miller, personal communication, 11 January 1999).

Unlike the relatively progressive response to AIDS in the 1980s, other, more radical political organizations, such as ACT UP, formed in the USA in response to a perceived inability or unwillingness by government to even acknowledge AIDS, let alone fund peer education programs to encourage participants to critique the political dimensions of the epidemic (Sadownick, 1996). Grassroots advocacy groups such as ACT UP have embraced the deeper, systems-change focus of health promotion (e.g., Farrant, 1991) whilst employing peer discussion as a key adult learning process.

<u>Peer education in the environmental field.</u>

Several examples of adult peer education and interaction can be found in the environmental field. Firstly, farmers formed Landcare groups in 1986 to work together to solve common problems, such as weeds, soil salinity, or feral animals, by initiating revegetation projects, and planning properties to minimize erosion (Hoare, 1997; Toyne, 1998). The project has resulted in participating farmers gaining enhanced knowledge about land degradation problems, skills in solving them, and taking action to solve them. By 1998, over 4, 000 landcare groups existed around Australia, with federal funding; a national coordinating body, the National Landcare Program (NLP) and approximately 30% of farmers involved (Hoare, 1997; NLP, 1997a; 1998). The concept has since been adapted by coastal and urban communities to protect their local environments.

The NLP was formed through the efforts of the traditionally left-wing Australian Conservation Foundation and the more overtly conservative National

Farmers' Federation (Toyne, 1998). Interestingly, despite (or because of) this history, the NLP tends to be broadly apolitical. It serves as an example of Jansen's (1995) call for greater cooperation and collaboration between more professionalized environmental groups and grassroots groups, in order to foster effective community leadership. The program is notable for its success in mobilizing communities; building networks; and encouraging new farming practices, community norms and self-sufficiency (NLP, 1997b). However, advocacy does not seem to have been a primary aim of the movement, and funding for Landcare program remains precariously under government control. It would appear that adult educators have had limited involvement in spearheading the development of leadership within this community movement.

Peer educator training has also been attempted in community environmental education. In the United States, Meehan and Berta (1993) published a guide for recruiting, training and managing volunteer peer leaders to monitor the ecology of local beaches. The leadership sought was a form of volunteer service provision, akin to many community-managed volunteer services established around AIDS issues (e.g., AIDSLINE Victoria, 1990). In this model, positive social change occurs through a ripple effect of peer influence between involved participants and the wider community, rather than through a concerted social change agenda. In Australia, Gibson (1993) investigated the persuasive peer educator and leadership role of community members in approaching their neighbours to encourage improved waste minimization practices. In further evidence of the collaboration sought by Jansen (1995), environmental organizations, community environmental education organizations and local council environmental officers in Melbourne drew on

Gibson's research to develop the 'Waste Stoppers' training program. Training aimed

to provide interested residents with skills in establishing and conducting a

community education program, using the resources and support of local councils

(Armstrong & Gough, 1996). In this regard, the program was notable for its

similarity to approaches used during the previous decade by AIDS Councils. Again,

training did not extend to involving deep, socially critical reflection or fostering

leadership in advocacy.

Despite this inability, or unwillingness, to embrace a community

empowerment perspective, this is what many citizens are seeking from their

participation in community education. A graphic example of this can be found in the

unpublished evaluation of the pilot Earth Works community education and training

program, which was trialed throughout 1993 in the state of New South Wales

(Melser, 1994). The aims of the program were to increase community knowledge of

the production and disposal of waste, increase residents' skills in minimizing waste,

and promote a community shift in values and behaviour. The NSW Environmental

Protection Authority provided funding, other resources and overall coordination for

the project. Local councils provided space for training, other material support,

administrative support, and day-to-day communication. Residents provided their

time, commitment and initiative by participating in the training and subsequent

outreach, in manner similar to Gibson's (1993) research and the Waste Stoppers

program (Armstrong & Gough, 1996). A number of courses were held throughout

NSW, in which a total of 230 volunteers were trained. An estimated 3, 600 people

were contacted as a result of the volunteers' outreach activities. Melser reported that

Earth Works succeeded because of a number of reasons: (i) the program provided a

focal issue (waste minimization) to which participants could commit strongly; (ii) the program provided participants with an opportunity to take action on that issue; (iii) the program enabled people to develop significant relationships with other participants and with program coordinators; (iv) the course provided participants with appropriate preparation and (v) the course provided participants with a framework for reflection on their experience. Each of these components combined to produce "'passionate commitment' and 'enthusiasm'" (Melsner, 1994, p. 15).

Melser's evaluation discovered that the program needed to help participants develop their confidence through increased praxis: "Knowledge is one basis of confidence, but successful practice in presentation and discussing ... issues with people seems as important" (1994, p. 20). He also highlighted the importance of a program developing some process for fostering ongoing learning. He recommended a program of readings and discussion of topics, training people to develop research skills, and creating a regular newsletter. Furthermore, he recommended providing participants with early exposure to outreach strategies and their attendant skills, such as dealing with conflict situations, public speaking, coordination between environmental groups, outreach, meeting previous trainers, and ongoing training at follow-up group meetings. He specifically recommended the use of peer education 'graduates' to help train new participants, and suggested that interested graduates learn the principles and processes of 'training the trainer'.

Earth Works participants not only identified the importance of the enthusiasm and group cohesion they derived from each other, but also their sense of partnership developed with their colleagues at the EPA and at Council. However, they also felt a sense of betrayal when EPA and Council support for the program appeared less than

genuine, as evidenced by their perceived reluctance to promote it sufficiently. Participants felt they had not been sufficiently involved in these core aspects of program management. Through their involvement in the program, participants developed an holistic, critical appreciation of waste minimization. They perceived that they were doing important groundwork for waste minimization, yet considered that the EPA were not doing enough to create significant systems change by changing industry regulations. Participants' appreciation of this anomaly apparently did not, however, limit their enthusiasm; instead it resulted in members targeting the EPA as a focus of advocacy efforts. Council were also targeted by newly empowered members who had concerns about Councils' response on certain issues. It seems both the EPA and Councils were unprepared for this outcome of the training. One council member is quoted as saying that "if we had known what it would produce we wouldn't have taken it on" (Melser, 1994, p. 18). On this occasion, advocacy was a natural outcome of residents coalescing around an issue and collaborating to address it at a grass roots level. The EPA did not renew their funding commitment to the Earth Works program, citing the cost intensiveness of the program as the reason for its discontinuation.

Earth Works provides a classic example of the ideological tension that can occur when institutions establish and then attempt to control, community-based adult education programs without an adequate understanding of citizens' need for meaningful, democratic participation (e.g., Berkowitz, 1996). This example also reinforces Rappaport's (1987) observation that substantive empowerment is more likely to be achieved when community initiatives are auspiced by organizations employing an empowerment philosophy. It is likely that the EPA and councils were

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operating from a helper-helped ideology. It can be seen that community development

organizations would be better placed than state institutions to foster the development

of community environmental leadership. Clearly, a role exists for environmental

educators to work with community adult educators to increase public awareness,

facilitate leadership development, and encourage expressions of active, democratic

citizenship (Mouffe, 1992b). Health promotion has drawn on the notion of advocacy

to achieve these aims.

The Role of Advocacy in Health Promotion

Advocacy training programs have been established in disability organizations

as part of a specific objective to enhance individual and collective empowerment of

people using disability services. Advocacy can be understood as a term to describe a

constellation of empowering processes at the psychological, organizational and

community levels of analysis, and involves "persuasive behaviors, ideological

positions, and the training of citizens to act on their own behalf" (Monroe, 1995, p.

425). Programs have variously concentrated on increasing people's knowledge about

how the service system operates, the services they really need as compared to what is

available, their legal rights to obtain services, how to advocate persuasively for

themselves, and, occasionally, effecting policy change (Monroe, 1995; Zirpoli,

Hancox, Wieck, & Skarnulis, 1989).

Some advocacy programs have focused on enhancing participants' self- and

collective efficacy in accessing the existing system and communicating with

stakeholders (e.g., DiGregorio Hixson, Stoff & White, 1992). Training members of a

disability advocacy organisation to enhance their performance in meeting situations

enhanced their competence in formal meetings, increased their engagement with

service providers and decision makers in other situations, and improved the overall effectiveness of the advocacy organisation (Balcazar, et al., 1990). Smith, Fawcett, and Balcazar (1991) focused on enhancing five advocacy skills, which can be seen to reflect the initial stages of both grassroots organizing: (i) identifying important issues shared by group members; (ii) reporting these issues at group meetings; (iii) identifying aims for the group to try to achieve; (iv) planning action strategies; (v) electing to engage in particular activities. To capitalize fully from their advocacy efforts, participants must also monitor their progress; reflect on outcomes; gain skills in dealing with inevitable resistance from service providers (Balcazar et al., 1990; Gruber & Trickett, 1987), and develop revised action strategies. These additional components are considered central to effective social action (Perkins et al., 1996). Truly effective advocacy also requires socially critical analysis (Newman, 1994). This deeper level of empowerment education, which would embody analysis of power relations as well as training in specific advocacy skills, would be better placed as part of training for general grassroots organizing. Wittig (1996) described grassroots organizing as "a form of collective advocacy" (p. 4). Importantly, she noted that grassroots groups' main goals are usually to advance a social cause and change the balance of power relations, rather than merely advance particular members' or others' interests.

In embracing the deeper empowerment philosophy of health promotion, other programs have engaged participants in a social critique of the underlying power dynamics of the service system, with a view to enhancing their participation in the planning, ongoing management, and evaluation of services. This approach has been shown to enhance participants' peer support and sense of community, and in

advocating for change (Zirpoli et al., 1989). For example, one disability organization employed advocacy training as part of its community development strategy to develop a grassroots, state-wide mutual-help network (Butterworth & Hilson, 1993; Butterworth & Murray, 1994). The organization's broader aim was to encourage collaborative advocacy and cooperation amongst people with disabilities, families, other advocates, service providers and bureaucrats to advance community empowerment around that disability (e.g., Bartunek, Foster-Fishman, & Keys, 1996; Bond & Keys, 1993; Zirpoli et al., 1989), and encourage formal adoption of government policies to foster primary prevention (Hilson, 1993). Peer education methods featured strongly in the organization's community development approach, and resulted in the employment of people with disabilities in community development roles (Butterworth & Murray, 1994).

Environmental advocacy

Despite the obvious role of grassroots and professional environmental organizations in educating for and/or engaging in advocacy for social change (e.g., Ingalsbee, 1996), the term 'advocacy' has appeared only rarely in the literature. Cantrill's (1992) notion of advocacy was couched in terms of mass-media 'environmental communication', and also concluded that this form of advocacy has failed to effect change, in part because of media saturation. Coyle (1993) and Kirchhoff, Schoen, and Franklin (1995) discussed advocacy in the context of basic and applied scientific research informing community action. In identifying the range of environmental planning approaches taken, Syme, Seligman, and Macpherson (1989) distinguished between 'advocacy planning' and 'radical planning'. Advocacy planning decisions reflect the efforts of professionally organized interest groups,

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such as lobbyists, to argue their case. The authors stated that planners may argue on behalf of interests with limited bargaining power, but made no mention of self-advocacy. In contrast to advocacy planning, radical planning was seen to reflect the impact of community activism. They noted that as a consequence of their limited participation and influence in formal planning, grass-roots movements have adopted a radical stance.

From this discussion it can be inferred that notions of advocacy used in health promotion and empowerment research, such as learning to speak up for one's self, making complaints, attending hearings and meetings, joining a mutual-help group or advocacy organization, volunteering, or lobbying, etc., are more equated with discussions of radicalism or activism in the environmental field, rather than expressions of active citizenry (e.g., Larson, Forrest, & Bostian, 1981; O'Riordan, 1995; Steel, 1996). Nevertheless, it is considered that advances made in health promotion advocacy research can add flesh to discussions of environmental activism, especially Hungerford and Volk's (1990) notion of responsible environmental behaviour as being "actively involved at all levels" in working towards resolving environmental problems or disputes (p. 9). These include identifying the nature and range of actions involved in self- and collective advocacy, the particular skills, strategies and peer support required, effective organizational structures for particular contexts, and documenting advocacy efforts and their attendant empowered outcomes (e.g., Balcazar et al., 1994).

Summary of Comparative Developments in Health Education and EE

Figure 10 summarizes the parallels between developments in EE and health education discussed in the preceding literature review. Peer education has been

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placed between psychosocial health education models and health promotion. This demonstrates the model's psychosocial roots, and shows its potential to be used in the systemic community empowerment-oriented approach of health promotion in its fullest sense, and critical adult EE. However, this placement also aims to highlight the frequent use of peer education strategies by state agencies to achieve objectives perhaps more associated by critics with social control.

Health Education	Environmental Education
Medical Model (pre 1950s) • Accurate information is provided by an authoritative 'expert' • e.g., brochure, public announcement	'Instrumentalist Model' (from late 1960s) • Public announcements are aimed at individual behaviour/lifestyle (most widespread form of adult EE; compete with messages to 'consume')
Psychosocial Models (from 1950s) • Focus on individual attitudes and beliefs • e.g., Health Belief Model	Psychosocial research (from mid 1970s) • Focus on attitudes, beliefs, other predictors of 'responsible' individual behaviour • Incorporated into much school-based EE research • e.g., Hungerford and Volk's (1990) EE model
Peer education (from 1980s) • Emphasises role of peers in modelling new subcultural norms and behaviours • e.g., San Francisco Model of AIDS education	• Principles of peer education and influence used in some grassroots environmental activities, such as Landcare, and community education on waste minimization • Peer interaction, discussion and modelling a feature of adult education
Health Promotion (from late 1970s) • Focus is on education; prevention; and protection • Embraces environmental, economic, legal and social factors; participation; advocacy; and empowerment at all levels	Popular adult environmental education (from 1990s) • Present research

Figure 10 Summary of Comparative Developments in Health Education and Environmental Education

Suggested Environmental Education Model

Figure 11 depicts a modified version of Hungerford and Volk's (1990) EE model. This schematic [1], conceptual model expands their notion of empowerment to incorporate measures at the psychological, organizational and community levels of analysis. 'Environmental citizenship behaviour' is redefined in terms of advocacy, in order to embrace the sociopolitical dimension to citizenship, and to re-envision such behaviour as referring to a constellation of empowering processes at multiple levels of analysis. In accordance with Perkins et al., (1996), sense of community is envisioned as a latent, mediating variable between training, community participation, and empowered outcomes.

In this schematic, education involves interested adults with attitudes of environmental concern acquiring leadership skills in grassroots organizing, with attendant skills in leadership, action research, advocacy and communication. By establishing grassroots groups or networks, participants enhance their sense of personal and collective ownership of the issues involved, and encourage other members to do likewise. They learn to apply the cyclic steps of grassroots organizing and AR to their environmental concern by devising, and engaging in personal and collective empowerment efforts; and documenting, and reflecting on the outcomes of their efforts, be they small wins or small losses. Sense of community is seen as an outcome of the leadership training; and their groups' subsequent grassroots organizing efforts.

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[1] It should be stressed that this is a conceptual model, and does not attempt to predict relations between variables at this early stage of development

EMPOWERED OUTCOMES

- Development of networks
- Secured resources
- Favourable media coverage
- Increased membership
- Inclusion of agenda in official decision-making
- Participation in decision-making
- Improved local services
- Changes to legislation

EMPOWERING PROCESSES

BEHAVIOURAL COMPONENT:

- Individual and collective advocacy
- Organizational development
- Issues raised at meetings
- Implementation of grassroots group development strategies
- Networking
- Shared leadership
- Reflection on outcomes of actions
- Development of revised action strategies or goals

EMPOWERMENT VARIABLES

INTRAPERSONAL COMPONENT:

- Perceived skill in using action strategies
- Sense of personal and collective efficacy

INTERACTIONAL COMPONENT:

- Critical understanding of socio-political environment
- Understanding of issues of power and control
- Knowledge of environmental action strategies
- Decision-making skills
- Advocacy skills

PSYCHOLOGICAL SENSE OF COMMUNITY

OWNERSHIP VARIABLES

- In-depth knowledge of environmental issue(s)
- Knowledge of consequences of behaviour
- Personal investment in issues
- Personal commitment to issue resolution

PEER LEADERSHIP TRAINING PROGRAM

- Group development
- Leadership skills
- Action research
- Advocacy
- Communication

ENTRY LEVEL VARIABLES (ENVIRONMENTAL)

- Environmental sensitivity
- Knowledge of ecology
- Environmental attitudes

Figure 11 Schematic Adult EE Model, Adapted From Hungerford and Volk (1990), Showing Integration of Empowerment Construct and Adult Education Principles.

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As documented in Figure 12, the suggested adult EE model has the potential to not only contribute to citizen participation in environmental decision-making and planning, in accordance with Arnstein (1969), but also to counteract tokenism and nonparticipation.

Degrees of citizen participation	8	Citizen control	• Community development skills • Peer leadership skills • Advocacy skills
	7	Delegated power	• Action research skills
	6	Partnership	• Communication skills • Negotiation skills • Environmental knowledge
Degrees of tokenism	5	Placation	
	4	Consultation	• Advocacy skills
	3	Informing	• Professional language skills • Power audit
Nonparticipation	2	Therapy	• Community development skills
	1	Manipulation	

Figure 12 Adaption of Arnstein's (1969) Ladder of Citizen Participation in Planning, Identifying Suggested Educational Content Areas.

The implementation of the suggested EE model is envisaged to proceed as follows: training and ongoing support is provided by staff members of existing, local, community-based organizations with a constituted commitment to community empowerment. Host organizations could include neighbourhood houses, adult learning centres, churches, and other grassroots organizations. Depending on their resources and philosophy, various environmental organizations could also provide this training and support role. Some local councils could also sponsor such programs,

depending on their stated goals and ideological commitment to democratic community participation and empowerment.

As in the AIDS Council model, interested community members are provided support in establishing and leading groups. In order to facilitate a productive group dynamic and creative peer discussion, training is delivered to groups of between six to ten people. In a divergence from the AIDS Council model, group leader trainees are encouraged to identify their own environmental issues of personal and local community concern on which to engage in grassroots organizing. Trainees establish grassroots groups in collaboration with residents recruited through their own efforts, rather than through the activities of paid staff in a parent organization. Depending on the resources of the centre or the desire for autonomy, trainee leaders may also use the centre to hold meetings.

Resource personnel within the parent organization provide trainee leaders with an opportunity to engage in group and individual reflection; not only during their training, but also during their development and leadership of their grassroots groups. Not all participants in leadership training groups may proceed to establish a group. However, their participation is valued in that they provide a 'critical mass' of group size to encourage active discussion; they may also use their skills in some other community activity in the future. In this manner, the suggested EE program contributes not only to empowerment around specific environmental issues, but also to general community development and empowerment.

Conclusion

This chapter has demonstrated the parallels between historical developments in environmental education and health education. By exploring health education and the emergence of health promotion, several limitations in EE and attendant opportunities have been explained using lessons learned in a discipline that holds many environmental objectives. A model of critical adult EE has been identified in which adult learning centres or other empowering community organizations conduct peer leadership training using a peer education approach to encourage environmentally concerned residents to develop grassroots organizations in which members will: investigate their environmental issue, including an exploration of the underlying distribution of social power; identify appropriate action strategies; engage in advocacy; and document, reflect and learn from the outcomes of their efforts. In the process, they will experience sense of community and contribute to the revitalization of participatory democracy.

CHAPTER 5

METHODOLOGICAL AND ANALYTICAL APPROACH

This chapter outlines the processes employed during the formative stages of

the research, by which appropriate research sites were identified, and the educational

intervention and data collection methodology developed. An empowering research

approach was developed to encourage interested people to participate collectively in

the co-production of knowledge (Chesler, 1991; Fetterman, 1994; Florin &

Wandersman, 1990), and, by enhancing participants' sense of personal and collective

efficacy, contribute to local community development (Rubin & Rubin, 1992). By

reflecting the complexities of situations faced by community organizers in everyday

settings, the ecological validity of the research was optimized (Reppucci, 1990). In

order to achieve these outcomes, action research (AR) was utilized.

The educational intervention plan consisted of an initial leadership training

planning forum; core leadership training curricula; and debriefing meetings. The

resulting educational framework was robust in that it could be applied from one

research cycle to the next. However, it was also sufficiently flexible to adapt to the

particular conditions experienced during each iteration, and be revised in the light of

insights gained during each iteration. Also described will be the process by which

data collection tools were developed to document participants' empowerment efforts

and empowered outcomes. Finally, the program's recruitment strategy will be

detailed.

Action Research Approach

The AR cycle of diagnosis, analysis, action, and reflection, is presented

schematically in Figure 13. Diagnosis involves finding out the facts behind the

presenting problem. Analysing the facts leads to the development of goals and

objectives, and the formulation of action strategies. Action must then be taken in a

way that is congruent with the group' plans and broader goals. During the reflection

phase, participants evaluate the efficacy of their actions against their desired

outcomes and what was actually achieved, and identify what was learned. New

challenges and issues commonly arise as a result of each AR cycle, which typically

require further analysis and action.

Diagnosis
(What are the problems?)

Where to from here?

Analysis
(Make action plans)

Reflection
(What did we learn?)
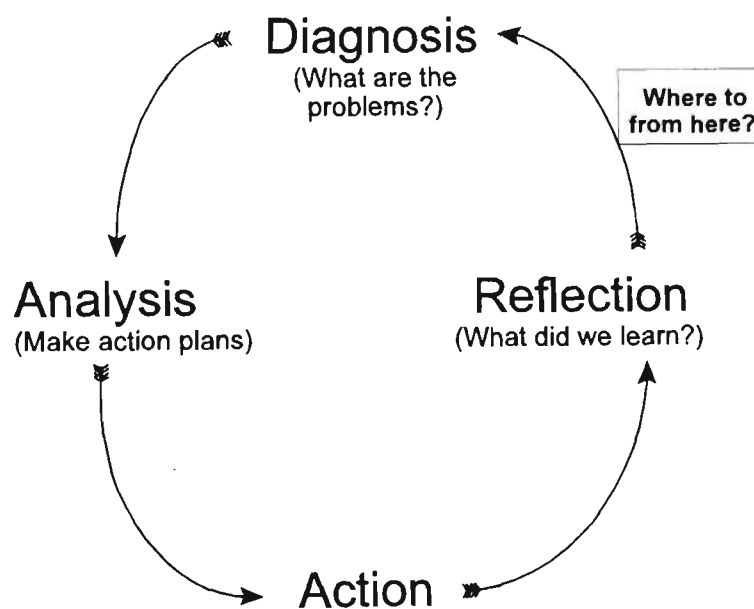
Action

Figure 13 The Action Research Cycle (Adapted from
Chesler, 1991; Wadsworth, 1991)

Using AR, knowledge can be generated that is not only of practical use to

community members' empowerment efforts, but also of theoretical and practical

significance to researchers. Indeed, it may serve to develop empowering coalitions

between them and knowledge of value to both (Chesler, 1991). Collaborative AR has

been shown to be a powerful means of improving education practice (Kemmis &

McTaggart, 1988): Indeed, AR:

> ... establishes self-critical communities of people participating and
>
> collaborating in all phases of the research process... it aims to build
>
> communities of people committed to enlightening themselves about the
>
> relationship between circumstance, action and consequence in their own
>
> situation, and emancipating themselves from the institutional and personal
>
> constraints which limit their power to live their own legitimate educational
>
> and social values (p. 23).

By adopting a sequential, informing process, AR creates knowledge in the

ecological context in which participants live and act. AR not only facilitates a

detailed understanding of the community setting in which the study occurs, but also

allows participants to exercise more control over the variables being investigated

(D'Aunnao & Price, 1984b). Thus, the people most affected by the outcomes of the

research are directly involved in investigating and identifying positive action

strategies, for taking the action and reviewing the outcomes of their actions (Kemmis

& McTaggart, 1988).

AR is seen to differ from much applied research because of its cyclic nature

and the researcher's commitment to becoming involved personally, to an extent, in

helping to create social change and community empowerment (Chesler, 1991;

Zimmerman, 1995). In AR, "the researcher is constantly challenged by events and by

ideas, information, and arguments posed by the project participants" (Whyte,

Greenwood, & Lazes, 1991, p. 42). As such, not only the researcher, but also the participants, are fully engaged in learning for the duration of the project.

By encouraging participants to engage in collaborative learning and socially critical thinking to achieve community development and empowerment, AR is seen to engage at a deep level of social structure and function. Kemmis (1997) argued that AR plays a key role in social formation and the constant interplay between social structure (expressed through culture, economy, and political life); social media (language, work, and power); individual identity and agency (reflected in people's understandings, skills, and values); and social practices (expressed through communication, production, and social organization). He stated that AR is a creative, social process engaging people in exploring the realms of possibility at all four stages of social formation. As such, AR efforts engage people in personal individuation, socialization, their individual and collective political emancipation, and social transformation.

The present research adopted an AR approach in order to meet participants' social action goals and contribute to community empowerment by involving participants in the research, and grounding the education process in the context of their environmental concerns. In addition, the research was designed to follow its own AR cycle. The educational material was developed through a sequential process of planning, implementation, evaluation and redesigning over several iterations. This process occurred both within sites, and from one site to the next. In attempting to adopt a participatory, collaborative approach, the researcher acted "less as a disciplinary expert and more as a coach in team building", and drew on the expertise of all participants (Whyte et al., 1991, p. 40). In this way, the participatory,

empowering nature of AR was employed to uphold the principles of socially critical, emancipatory adult education (Brookfield, 1986; Freire, 1970; Mezirow, 1991). Community consultation generated initial participatory momentum for the AR approach, and was maintained throughout the fieldwork.

Community Consultation

Community consultation was conducted to ground the research process in a substantive understanding of the relationship between the phenomena of interest and the social and temporal contexts in which they occurred (Wicker, 1989). Consultation was also undertaken to develop an active, participatory research network of interested people with whom to explore the research questions, develop educational materials and research instruments, monitor progress and explore issues and outcomes. In this way, the research endeavoured to contribute to community empowerment by fostering in the field a broader momentum of interest, discussion and participation in the project at each site.

A plain English brochure was developed to explain the research program and introduce the researcher. Key informants were located through networking, and consulted for their expertise in the fields of environmental education, environmental science, environmental policy, environmental advocacy, peer education, adult education, and AR methodology. Informants included academic researchers, professional practitioners, and community activists. (A detailed list of informants is provided in Appendix A).

Attempts were made to establish a research reference group of approximately six people, comprising the researcher and key informants. However, it proved

impossible to establish a common time and place in which people could meet to advise on the development and evaluation of education and training material. A practical compromise was found in consulting widely across disciplines and interests, and ensuring that the ideas raised were explored and critiqued amongst a range of informants. It was through this approach that the education program and data collection strategy were developed, research sites identified, and recruitment strategy devised.

Identification of Research Sites

The EE program was designed to be conducted in several iterations in geographically and culturally diverse settings, with a process of evaluation and adaptation in order to draw on the insights gained from each iteration, and to suit the contexts in which subsequent iterations occurred. In this way, the EE model could also be examined for its applicability across different communities. This approach was taken to maximize the empowering benefits of AR, by optimizing the potential for research participants to transfer information, skills, and support across iterations, and from one site to the next (Chesler, 1991). Consultation with key informants identified two sites in urban Melbourne. It was originally anticipated that a third community, in rural Victoria, would be located. However, as the complexity of the AR process became apparent, a third site proved not to be feasible within the time constraints of the research.

Industrial District in Western Melbourne

The first site to be identified was Altona North, a working-class district in Melbourne's industrial west, home to many migrants from a wide range of non-

English speaking backgrounds. The environmental officer from the local Hobsons Bay City Council expressed interest in finding ways to encourage migrant residents from this district to become more assertive in advocating their environmental needs and concerns to Council. The local Westgate Migrant Resource Centre (MRC) was approached at his suggestion. MRC personnel were keen to find ways to encourage environmental empowerment amongst their members. They agreed to participate in the research, offered the use of their premises as a venue, and participated in the development of the education program for this setting. Through this connection, migrant workers in other community-based agencies also advised on the EE program. The environmental officer was kept informed of developments and invited to participate in the process.

Gentrifying District in Inner Melbourne

At the recommendation of the Hobsons Bay City Council's environmental officer, contact was made with the environmental officer for the City of Port Phillip: a gentrifying, inner urban area, with a large coastal beach frontage. This also happened to be the district of Melbourne in which the researcher lived. This informant indicated that Council would be interested to support any education process which would enhance the degree of informed and active citizenry, and recommended the district for its culture of community participation. In particular, the officer was keen to identifying ways of involving people aged between 30 and 50, who were considered to be under-represented in local community activities.

Selection of Site for First Iteration

Key informants recommended that the initial stages of the education program be conducted in Port Phillip, to allow the researcher to develop his ideas and explore

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the action research process in a geographic area with which he was culturally familiar. This familiarity was due to Port Phillip population's higher levels of education, better English-language facility, and the fact that the researcher resided in this district. Migrant Resource Centre personnel agreed to postpone training at their site. In the intervening period, the researcher attended several local environmental community consultation meetings with MRC personnel, and reported regularly on progress at the first site.

Research Sequence at Each Iteration

Each iteration was designed to follow an AR sequence of planning; adaptation to the setting; recruitment; educational intervention; evaluation; modification for the succeeding iteration; and ongoing monitoring of participants' activities and their outcomes (see Figure 14). The stages of recruitment, data collection, training, evaluation, modification, and ongoing monitoring and consultation will be described in detail below. It must be stressed that the following sections identify the planned approach that was devised prior to the commencement of fieldwork. Subsequent chapters describe and document the manner in which the plan was applied and modified during each iteration.

Recruitment

The aim of the research was to engage environmentally-concerned, adult residents, but who had minimal experience in environmental action. This was done for two reasons: firstly, to add to the critical mass of people engaging in environmental action and advocacy; and secondly, to try to avoid running the agendas of existing environmental organizations and being coopted into their roles.

- Publicity material distributed

- Initial callers sent information

- Candidates elect to join program as trainee group leaders

○———————————————————● Some candidates choose to
join program once action
group established

- Initial interview conducted;
  pre-test measures obtained

- Information and planning day held; training content prioritized

- Leadership training conducted

- Participants debrief regularly on AR activities

- Grassroots group established

- Evaluation conducted of training ; post-test measures obtained

- Ongoing consultation to grassroots group

- Ongoing documentation of empowerment efforts and outcomes

- Evaluate iteration; commence preparation for next iteration

- Participants may contribute to orientation/training at next iteration

- Obtain follow-up post-test measures of members of any active group at
  six-monthly intervals

Figure 14 Planned Sequence of Events During Iteration

To achieve this, a number of recruitment strategies were put in place. These included

drawing on the networks of key informants at each site, announcements and publicity

in local newspapers and community radio, and distribution of posters and fliers to

facilities such as community education centres, libraries, places of worship,

employment centres, welfare agencies, and health centres. A general brochure was

developed to be distributed to people enquiring about the project. Callers were also

sent information explaining the research process and their rights, and an agenda for

an introductory information and planning forum. This communications strategy was used in all three iterations of the project.

In order to assess callers' suitability for participating in the research, an initial assessment was made about whether those with extensive experience in environmental action and leadership might be able to gain anything by participating, and how their participation might affect the peer education process. Rather than adopt a blanket selection policy, it was decided to work with each caller individually to identify their particular background, skills, and reasons for responding to the publicity. These issues were discussed in greater depth during subsequent interviews with those with whom it was agreed would 'fit' into the education program.

Because of the nature of the second site, modifications had to be made to the screening process. If it were deemed that they were sufficiently conversant in English, callers were informed about the research program and sent the general brochure. Otherwise they were invited to discuss the education program with MRC staff and attend the initial information evening. This forum was structured to communicate with people from non-English speaking backgrounds with little prior knowledge of the full nature of the research program.

Development of Data Collection Modes

A data collection strategy was developed to capture Weick's (1984) notion of empowerment as the cumulative effect of small wins. Weick stated that small wins may follow no logical sequence, making the most of information arising from disparate sources about opportunities, often within a small 'window of opportunity'. "Small wins stir up settings, which means that each subsequent attempt at another win occurs in a different context" (p.44). He stressed that in order to capitalize on the

non-linearity of small wins, and make sense of the deeper meaning inherent in them, it is essential to be able to identify and collate the small changes that may be present but may otherwise go unrecognized. In working with participants to identify and document small wins, the researcher aimed to enable participants to integrate their experiences, and to re-frame their empowerment efforts and outcomes as intermediate stages of a broader, incremental, long-term process (Fawcett et al., 1995).

Weick (1984) stressed the importance of people integrating the meaning and implications of their small wins (or losses), in order to capitalize on their experiences and achievements. In this way, reflecting on each small win and channelling the lessons learned into subsequent investigation, planning, and action, is congruent with the AR cycle. Each small win or loss represents the culmination of a particular AR cycle. The documentation of each component of this cycle affords participants and the researcher with a wealth of data to map, interpret, and integrate the component stages of the empowerment process (Chesler, 1991; Wadsworth, 1991; Zimmerman, 1995).

A range of data collection methods are suited to AR with grassroots groups, including: questionnaires, interviews, participant observation, personal oral histories, retrospective group histories, reviews of group records and minutes, ethnographic case studies, personal stories, and personal reflections on group experiences (Chesler, 1991, p. 766). Particular attention was given to the development of data collection instruments that could be readily understood by people from diverse cultural backgrounds, and which were related to significant components of the literature and previous research. These included measures of environmental knowledge, attitudes

and behaviour, and individual and collective empowerment (e.g., Hungerford & Volk, 1990; Smith-Sebasto & D'Costa, 1995). To optimize the validity of the research, substantive issues would be triangulated, using multiple viewpoints and using multiple methods (Patton, 1990; Reason & Rowan, 1981). Inspection and analysis of a range of records would reveal the dimensions of the empowerment construct at which any successes occurred. The main data collection modes selected for this research were the researcher's log book, qualitative interviews, and a quantitative questionnaire. Participants also would be encouraged to keep a log book of notes, records and reflections of their activities and experiences in the research program, and invited to share any of their more private reflections.

The methodological approach was developed such that upon their recruitment, an initial interview would document participants' interests and expectations, and obtain qualitative information about the extent of their community development experiences. Participants would provide baseline data of the measures detailed in the questionnaire, and general demographic data. Changes in these quantitative and qualitative measures and dimensions would be assessed during the course of the research. Qualitative data to map participants' experiences and perspectives would be gathered in the form of structured and informal interviews with participants (both individually and in group), the researcher's log of the AR process and notes kept by participants.

People electing to train as group leaders would be assessed for their knowledge and skills before training. Comparison measures would be obtained immediately after training, and subsequently at six monthly intervals. Furthermore, these measures would be administered to people joining any grassroots groups

established by leadership trainees. The research also aimed to map the activities and outcomes of any resulting grassroots groups, and to document participants' experiences in, and perspectives on, their involvement in the research project. Any grassroots groups established would be monitored for their environmental advocacy outcomes over a six-month period; subsequent measures would be taken at six-month intervals, depending on the ultimate longevity of the groups. Figure 15 summarizes the various data modes employed, and the types of data that were intended to be collected in each mode

Researcher's Log

The researcher's log served as the primary means for documenting participants' empowering processes and empowered outcomes. Minutes of meetings provided data on issues raised at meetings, the frequency of meetings, and the number of participants. Group leaders were asked to keep copies of any issue-related organizational correspondence (such as letters sent out to local decision makers). The log documented the actions that participants reported taking in accordance with goal-related action strategies identified at group meetings. Reported actions were compared with data from other sources, such as interviews with any elected group leaders and independent sources, and by inspection of permanent records. Records were also kept of the resulting outcomes or changes for individual members, the organization, and in the community which related to group members' goals and which were a direct, documented result of the group's actions (Balcazar et al., 1994). Outcomes might include new group members; new appointments of group members to local decision-making bodies; securing funds; changes in policies or services; and new legislation.

Empowerment Dimension	Level of Analysis	Examples	Data Mode
Processes	Psychological	• Participation in community organizations • Actions taken by individuals	Documents • minutes; • newsletters Log book

	Organizational	• New, relevant issues raised at group meetings
		• Collective decision-making
		• Shared leadership
		• Actions taken by members:
		  • telephone calls
		  • letters written
		  • meetings held
			Documents
			• meeting minutes
			  • relevant action issues raised
			  • frequency of meetings
			  • number of participants
			
			Log book

	Community	• Public meetings • Collective action • Collaborative with institutions	Documents • Press reports • organizational minutes
Outcomes	Psychological	• Perception of having gained control over some situations • Attainment of participatory competence	Pre- and post-measures via: • Questionnaire • Interview case notes
	Organizational	• Outcomes of members' actions • Changes in group's environment as a result of members' actions • Networks development • New appointments of group members to local decision-making bodies; • Accumulation of resources • Lobbying power • Secured resources • Enhanced organizational effectiveness	Documents: • meeting minutes; • fliers; • press releases; • press reports • newsletters • organizational correspondence Log Book: • case notes of individual and group meetings and group interviews documenting qualitative measures of collective efficacy
	Community	• Development of coalitions between organizations • Development of more and better services • Improved collective lives • Positive changes to the physical environment • Improved environmental planning regulations • New funds to support local environmental schemes • New legislation	Documents • press reports • official correspondence • meeting minutes

Figure 15 Data Modes Employed in Research, Showing Empowerment Dimensions Captured by Mode

The research log also provided an important opportunity to record the researcher's own involvement in and reflections on the AR process, to record milestones in the life of the research project, and to document the process by which he reconciled issues and dilemmas. A detailed summary was kept of interviews with potential research participants, consultation meetings and significant conversations held during all stages of the research. All training sessions were documented, in which participants variously discussed issues, identified action strategies, reported the results of previous actions, reviewed their group's progress and reflected on the ways in which the training program had affected their perceptions of psychological, organizational and community empowerment. Records were kept of press clippings, fliers, and other material on the public record. Many of these were fixed into the log book to provide historical continuity. Proceedings from all training sessions were recorded onto audio tape. In addition, electronic mail messages between researcher and supervisor and other parties were stored, in order to provide a background narrative of actions and reflections occurring during the AR process.

Interview Schedule

An open response format interview schedule was designed to provide information and induction to people interested in participating in the research project, as well as obtain general demographic information about age, socio-economic status, ethnicity, length of time spent living at present address, length of time spent residing in the district, levels of formal education, languages spoken, and participants' views of their degree of fluency in spoken and written English (see Appendix B). The interview schedule also explored the nature and extent of participant's experiences in environmental and/or community action. Prior to being interviewed, potential

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participants were provided with information explaining the research process, and outlining their rights. During the interviews, they explored their expectations and concerns about participating in the research, and discussed their interest and availability. Upon agreeing to participate, participants were reminded of their rights and asked to complete a consent form.

Questionnaire

In accordance with Hungerford and Volk's (1990) EE model, a 40-item questionnaire was developed to assess, through pre- and post-tests, the impact of the educational intervention on key empowerment variables – participants' ratings of their knowledge of environmental action strategies, perceived skills and efficacy in using such strategies (Bandura, 1982; Sherer et al., 1982), and actual activity during the previous six months. Smith-Sebasto and D'Costa's (1995) environmental action inventory was adapted to assess psychological, organizational and community-level empowerment efforts across a range of actions, including those of a civic (or political) nature, as well as educational, financial, legal, physical (practical actions to improve the physical environment), and persuasive (action taken by an individual or group aimed at motivating others). The questionnaire also assessed respondents' psychological sense of community, in accordance with the 12-item inventory developed by McMillan and Chavis (1986). The final version of the environmental knowledge and skills questionnaire is included in Appendix C.

Early experience in administering the questionnaire indicated that collection of a meaningful data set would be difficult, given the rate of participant attrition and the small number of remaining participants during each iteration. At the second research site, language barriers, cultural sensitivities, and the transience of

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participants at training sessions, amplified the difficulty of obtaining quantitative data. Due to these limitations, the quantitative data collection strategy was abandoned.

Group Evaluation Tools

At various stages in the research program, research participants were invited to participate in a collective evaluation of their involvement in the program and the outcomes they felt they and their group had achieved. Evaluation forms were developed which participants could complete anonymously and then discuss in group. An example of a group evaluation schedule from the second iteration is included in Appendix D.

In all iterations, the most appropriate form of participant data collection proved to be qualitative, occurring at training sessions or other meetings, when participants reported and reflected on their individual or collective activities. It transpired that taping sessions, and writing ideas and outcomes on flip-chart paper during the meetings, provided the most reliable means of data collection. Issues encountered during the course of data collection will be discussed in depth in Chapter Nine.

Data Analysis

The AR took a substantive, grounded approach to exploring empowerment phenomena by focussing in depth on this domain of interest to gain an intimate understanding of its complexity, and using a wide range of methods and perspectives in an attempt to measure the domain in some depth (Wicker, 1989). In seeking to understand the phenomena of interest, the AR approach embodied Lincoln and Guba's (1985) model of naturalistic enquiry. The researcher engaged in repeated

iterations involving purposive sampling, inductive analysis, grounded theorizing and emergent design. This approach built on tacit knowledge, and sought to triangulate research findings using multiple methods. Each iteration involved negotiating the outcomes with research participants to verify whether participants considered the interim and final research outcomes an accurate portrayal of their lived experience. In accordance with Lincoln and Guba's model, outcomes were evaluated for their credibility, transferability, dependability, and confirmability.

In order to obtain a substantive, grounded understanding of empowerment phenomena in particular settings from participants' point of view, the research aimed to describe – indeed, translate – participants' experiences. To achieve this aim, the researcher adopted an ethnographic stance, by placing himself in the midst of the phenomenon under investigation (Berg, 1989). According to Berg, analysis of ethnographic data aims to identify underlying patterns and emerging themes. He argued that the ethnographic approach was intended for describing, rather than hypothesis testing: "Using a variety of reductionist procedures to cull numbers from ethnographic data is not really in keeping with the ethnographic process" (p. 76). The macro-ethnographical approach attempts to document the entire way of life of a group. In contrast, micro-ethnography "focuses on particular *incisions* at particular points in the larger group setting, group, or institution", which are selected "because they in some manner represent salient elements in the lives of participants and in turn, in the life of the larger group or institution" (Berg, 1989, p. 53, original italics). The micro-approach tends to focus on face-to-face interactions among members, the outcomes of their actions, and the broader implications of these outcomes – not only for the individual participants, but also for the macro-level setting. In this way, it can

be seen that an ethnographic approach was well suited to the exploration of psychological, organizational and community empowerment processes and outcomes and the interaction between these levels of analysis.

Of particular relevance to the analysis and interpretation of empowerment phenomena are lengthy textual accounts, particularly in the form of narrative accounts, accumulated over time, of participants' experiences and achievements. Documenting people's stories related to their involvement in the research enabled salient empowerment phenomena to be identified through analysis, and reported back to participants as part of the AR cycle. Description and integration of the sequence of empowerment efforts and outcomes observed in each setting gave contextual shape to Kieffer's (1984) depiction of the longitudinal empowerment process. Documentation of the empowerment narrative was also in accord with Rappaport's (1995) suggestion that narrative is an empowering intervention in its own right. He argued that encouraging community narrative, by creating settings where people can share their stories, provides citizens with the means to articulate the symbols, language, stories and myths that hold their community together. Furthermore, this sharing of deep experience provides the conditions necessary for emancipatory adult education (Foley, 1995 b; Welton, 1995). In sum, the ongoing, grounded, AR cycle of documentation, ethnographic analysis and feedback, served an educative function, and provided both the researcher and participants with a deeper understanding, through sequential analysis, and description, of the issues and themes emerging during each iteration (Miles & Huberman, 1994).

All stages of the AR process, including data generation and analysis, were guided by a clear theoretical framework, or sensitivity (Carpenter, 1995; Glaser &

Strauss, 1967; Straus & Corbin, 1990) which facilitated identification of the relevant data in the research log. The researcher drew on theoretical sensitivities afforded through: (i) a detailed reading of the empowerment literature, (ii) several years of practice in conducting multi-level empowering community interventions, (iii) detailed reflection and discussion with his supervisor on the AR process and research participants' activities and associated outcomes. The researcher also sought to add to, and critique, his perspective by debriefing with the co-facilitator of the education program, when available, and with key informants.

The AR role required deep immersion at each site (Chesler, 1991) in generating and delivering the education program, recording the proceedings of education meetings, other group sessions, and discussions held with individual participants, compiling meeting minutes, reviewing minutes with participants, generating and collecting correspondence, and amassing the information gathered on participants' activities and their outcomes into the research log book. Data was generated as participants, in their natural settings, worked through analyses and conclusions of their actions and learning as part of their dialogue in group meetings. They typically engaged in group reflection on their personal and collective research-related experiences, and events that had occurred in previous meetings. Participants were frequently and sequentially engaged in reflective activity, integrating the sum total of their involvement in the EE program, and providing analyses of their experiences in ways that could be interpreted from an empowerment perspective. They were encouraged to reflect critically on the links between their own actions and the particular empowered outcomes they felt they had generated.

Given the incremental, cumulative nature of participants' engagement, and the researcher's ongoing role in documenting this process and sharing interim findings with research participants, much of the documentation of empowering processes, small wins and emerging issues took place during and between meetings, and was included in minutes of meetings sent to participants. Minutes integrated material gathered on flip-chart paper during meetings with contextual discussion recorded on tape. Minutes were sent to participants after every meeting; at the following meeting participants commented on their veracity. The cumulative generation of data in the log book thus incorporated participants' regular reflection and discussion on the summaries that the researcher had made of their participation in meetings, the activities they had initiated as a result of the decisions they made during meetings, and the outcomes generated by those actions. Participants reported these outcomes to subsequent meetings; in addition, the researcher attempted to document them through additional avenues, such as by obtaining copies of correspondence, or discussing the outcomes with third parties. Other data, especially relating to psychological and organizational empowerment, was derived from records made of conversations and interviews with individual participants.

During the fieldwork, approximately 40 hours of proceedings from training sessions and meetings were taped. An archive of over 300 electronic documents was created, including training material, and transcripts of training sessions and meetings. Copies of correspondence sent to participants and key informants were also stored. Over 400 electronic mail messages were logged, often involving reflections between the researcher and his supervisor. More than 500 pages of notes, correspondence from participants, and personal reflections were compiled. In order to make sense of

this data, records were inspected, both during and after the fieldwork, for evidence of empowering processes, small wins, and long-term empowered outcomes. In order to facilitate analysis of these data, empowerment summary tables, or matrices, were developed, which acted as a guide to coding and cataloguing empowering processes (actions) or empowered outcomes, at the level of the individual, group/organization or community (Miles & Huberman, 1994) (see Tables 2, 3, 6, 8, 9, and 10). Many examples of empowerment phenomena at the psychological, organizational, and community levels of analysis (e.g., Perkins & Zimmerman, 1995), for which evidence was sought, are illustrated in Figures 8 and 15.

<center>Educational Intervention</center>

Given the philosophy underpinning peer education, popular education and mutual help, the educational intervention was designed to "...begin from where people are and draw out their own potential to bring about personal, social and political change; make links between the personal and the global; stimulate reflection; and motivate action" (Clover, 1995, p. 48). Therefore, the EE program was formulated so that people could participate in the project in several ways, according to their interest, confidence, and availability. Firstly, they could learn, through practice, how to establish and lead grassroots groups around environmental issues of their choice. Alternatively, they could participate in leadership training with the option of establishing a group in their own time. Thirdly, they could wait join a group as general members once leadership training was completed and any groups were established.

Group leadership training was designed to assist participants to learn how to establish grassroots groups, involve members in the AR process central to grassroots

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group function, collect data that would aid both their grassroots group and the research, engage in advocacy; foster effective and democratic communication, and monitor their groups' progress. Figure 16 summarizes some of the competency areas that the training aimed to foster amongst group leader trainees, based on a review of the literature on grassroots group development, critical adult education, power analysis, and advocacy (e.g., Balcazar et al., 1990; Bettencourt, 1996; Brookfield, 1986; Freire, 1970; Manz & Gioia, 1983; Maton, 1988; Newman, 1994; Paterson, 1970; Pilisuk, McAllister, & Rothman, 1996; Rubin & Rubin, 1992); and action research (e.g., Street, 1996).

Training was partially based on a guide to setting up a self-help group compiled by the researcher during previous employment (Brain Injury Association of NSW, 1994). Aspects of the guide were modified during the fieldwork to incorporate participants' feedback and ideas, and to suit the particular conditions encountered at each site. The original guide's contents are included in Appendix E. A range of generic training modules to address these competency areas were developed for delivery at each iteration; the agenda for each module are included in Appendix F.

The first education session was designed to as a one-day planning forum, so that participants could take part in a broad orientation to the research program, discuss the key concepts and core training components, identify and prioritize their training needs, reach consensus on a practical training schedule, and begin to investigate their environmental issue. Subsequent leadership training sessions would be drawn from core training curricula and material contained in the guide to setting up a group.

Skill Area	Examples
Grassroots group-related skills	► organizing meetings ► recruiting members ► publicity and media skills ► networking ► strategic planning ► helping members to learn to organize events and meetings ► helping group members to learn to apply group development strategies ► encouraging members to take on leadership roles
Action Research Skills	► issues identification - including ecological issues ► obtaining background information on research and current events ► planning ► devising strategies ► help participants to be able to consider the consequences of their actions ► reflection/evaluation of strategies ► planning new actions
Group Skills	► welcoming people ► introducing issues ► introducing activities ► monitoring group dynamics ► helping members to set and maintain ground rules ► helping members to explore and express ideas, opinions and feelings ► helping members to develop critical reasoning skills ► helping participants to draw on their experiences and knowledge ► helping participants to develop self-awareness ► helping participants to explore their world-view ► encouraging group members to work together
Communication Skills	► active listening ► reflective listening ► clarifying ► summarizing ► decision-making ► closure of discussion
Advocacy Skills Development	► power analysis ► self confidence ► negotiating skills ► making a complaint ► asking for assistance ► individual and collective skills in identifying and applying action strategies

Figure 16 Expected Competency Areas of Effective Grassroots Group Leaders

To encourage leadership trainees to develop a repertoire of portable teaching

and leadership skills, training was designed to assist trainees to explore their own

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learning styles as adult learners, and make sense of what they were learning. Training was structured to encourage participants to learn in three ways. The first approach, direct experience, aimed to involve participants in a variety of training activities, including formal presentations, guided discussion and occasional role plays. Written handouts were developed on various issues involved. Secondly, participants would debrief collectively on the process and content of their learning experience, and their reaction to it. Thirdly, they would be encouraged to engage in journal reflection on what they had learned, how they could harness this learning experience as group leaders, and the issues and questions raised by training. Journal reflections would stimulate discussion at subsequent sessions. A workable group size was, therefore, important, in order to generate peer discussion.

The education program was designed so that a group of up to 6-10 trainee group leaders would participate in leadership training in each iteration. Although only a minority of participants might work actively to establish a grassroots group, a reasonable group size was needed to generate a workable group dynamic. In addition, people electing to establish groups could draw on members not directly involved in establishing groups for peer support and ideas. Thirdly, general training would provide all trainees with an opportunity to develop skills that they could use in their own way, in their own time. In this way, the training would contribute to general community development.

Training was formulated so that leadership trainees could establish grassroots groups either during or after their training, with the option of working in pairs for added support. Peer leaders initially would debrief regularly with the researcher and, as the study progressed, increasingly with each other. As trainees worked to establish

groups, either during or after initial leadership training, they would regroup at regular intervals to debrief on their activities and the progress of their groups. Debriefing sessions were designed according to action research principles, in that participants would be encouraged to: (i) reflect on the outcomes of their previous actions; (ii) describe the data they had collected; (iii) discuss and resolve issues arising around their role as group conveners; and (iv) plan future activities. After each session, participants would be sent detailed written feedback, documenting their reported empowerment-related activities and outcomes, and showing how their own ideas and reflections had added to the discussion material presented at each meeting.

<u>Evaluation and Adaptation of Intervention for Subsequent Iteration</u>

To reinforce their active participation in the AR program, participants would be encouraged to evaluate each component of the training program following its delivery. Following completion of the training, a final forum would be held to evaluate the program for its overall impact. The evaluation forum could also serve as the orientation for peer leader trainees recruited from the next site and/or iteration. By incorporating this feedback, a modified training program would be conducted at the next site. To encourage a transfer of skills and networks between iterations, volunteers from one iteration would be invited to assist in the training of peer leaders at the next.

The following three chapters will describe the education delivered during each iteration, the activities engaged in by participants, and the findings obtained.

CHAPTER 6

FIRST ITERATION

This chapter will outline the implementation of the first iteration of the EE program, and the findings of that iteration. The chapter will conclude with a brief discussion of the issues raised by the first iteration, for integration into the second iteration. Because of the cyclic, non-linear, developmental nature of AR (Chesler, 1991), the research does not lend itself to reporting according to the traditional experimental model. Instead, processes, results and evaluations will often be described together in order to match the AR philosophy.

The City of Port Phillip

The City of Port Phillip contains a diverse population of some 70,000 people. The area is known for its nightlife, cafes, restaurants, sex industry, injecting drug use, markets and shops. Since 1996, the State government has arranged for the Australian Grand Prix motor race to be held in a public park in the municipality, despite widespread local opposition. The district is home to many subcultures and ethic communities, including artists, Jewish people, gay and lesbian people, people living in boarding houses, indigenous people (Kooris), students, and homeless people. According to the City of Port Phillip (1996a), the population of this area is slightly older than the rest of Melbourne, with a median age of 34 years, compared to 32. The area contains 18% of people aged 60 years and over, compared to 15% generally. In addition, 57% of its population are aged between 20 and 48 years, compared to only 47% in Melbourne in general.

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Perhaps the best-known district in the Port Phillip municipality, with national prominence, is St Kilda. For over a century, St Kilda has been famed as a bohemian seaside resort, featuring surviving Victorian-era landmarks such as Luna Park, the Palais Theatre, the St Kilda Pier and the Esplanade Hotel, as well as period housing and the continental cake shops lining Acland Street. Following its zenith last century and early this century as a resort for the genteel, several decades followed as the centre of Melbourne's seedy nightlife and artistic community.

Whilst St Kilda and the Port Phillip district historically has had a notable proportion of residents living on low incomes, the district has experienced rapid gentrification in recent years, forcing out long-term low-income residents such as artists, boarding-house tenants and aged people (Elder, 1998). Currently, compared with the rest of Melbourne, proportionately more residents hold university qualifications and earn high incomes, and fewer people hold no qualifications at all. A high proportion of residents describe their occupation as professionals and managers (City of Port Phillip, 1996a). At the 1996 federal election, the Australian Labour Party held the electorate covering most of Port Phillip, with 56% of voting preferences, compared to the conservative Liberal Party's 44% (Australian Electoral Commission, 1996).

Training Facility

Despite an extensive search, a sponsoring agency could not be located from which to conduct the training. A local church eventually offered an accessible venue for the cost of a small donation. Publicity commenced in February 1997, and recruitment and training in March.

Research Participants

Twenty-two people responded by telephone to initial publicity. Three callers did not proceed because of their extensive experience in environmental action and leadership. However, one seasoned environmental campaigner did join the project, in order to reflect on his experiences in grassroots groups, and to improve his leadership and communication skills. The convenor of a new local environmental action group also joined, in order to develop the leadership skills needed 'to engender a sense of ownership in other people'. Although many callers were unable to participate due to existing commitments, several elected to have their names placed on a mailing list to be kept informed of future events. The Secretary of a local historical society rang after training had commenced, expressing an interest in encouraging advocacy on urban heritage. She also agreed to join the waiting list.

A total of nine Port Phillip residents elected to participate in the research. They were interviewed and completed a pre-test questionnaire. From this initial pool, five women and two men attended a full-day planning forum in March 1997. Participants were aged from 22 to 48. All were of Anglo-Celtic origin; all had indicated that they were literate in English, their primary language.

Research Process

At the initial planning forum, participants discussed their reasons for joining the education program, as shown in Table 1. Participants received an overview of the research program, engaged in facilitated discussions of environmental education and the environmental movement, and explored action research and its connection to grassroots group development. (This latter session was presented by a lecturer from

Victoria University.) The agenda for the initial forum is included as Appendix G.

Notable was the absence of specific environmental issues around which participants

could develop action research projects. Participants elected to engage in further

training, and selected three initial core topics of: (i) setting up a group, with a

particular focus on ways of encouraging people to get involved; (ii) communication

skills; and (iii) group dynamics.

Table 1 Reasons Given for Attending the Initial Planning Forum

Area of Interest	Specific Statement
Skill development	• to increase my skills • to develop group skills • to consolidate the skills I have already • to acknowledge my skills • to develop better people skills • to learn time management skills
Learning	• to learn something new • to learn how to 'lead the mainstream' • to learn from others • to learn about 'the system'
Ways of connecting to general community	• to help the community to get a sense of shared ownership, responsibility and empowerment for acting to make changes • skills in 'marketing' environmental issues to others in the community • to find out how to work with the 'non-converted' • to get support from outside the green movement – the general community • to add to what is being done • to use my experience
Group Activity	• to contribute to a group • to do things as part of a group • to meet people • to do interesting things • to 'have fun' – three people were interested in developing theatre project
Personal development	• to challenge myself • ways of looking after myself

Evaluation of Planning Forum

Following the planning forum, participants were sent a detailed summary of

the meeting, including an analysis of people's evaluative comments. The forum was

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rated by six out of seven participants as 'good' or better. Participants commented that their experience at the forum had helped them learn about planning and presentation and the value of open discussion. They identified that the meeting could have been improved by ensuring that sessions were introduced with a clear objective and summarized more clearly at the end. All subsequent training workshops and seminars were modified to follow this format. Co-facilitation would have ensured that many of these process details could have been attended to more closely. A key informant had arranged to share facilitation, but had to decline at short notice.

Three follow-up training sessions and a final evaluation session were held during April and May 1997. Four remaining participants were three women and one man, with ages ranging from 35 to 48 years. They included the convenor the local action group; the self-identified environmentalist; a resident with no environmental action experience at all; and a recent environmental science graduate. Co-facilitation was provided by a fellow doctoral candidate from Victoria University with group work experience.

At the completion of the training schedule, participants agreed that there was still no presenting local environmental issue on which to proceed with further training. As a closing activity, participants decided to describe their experiences in the research program at an information evening for prospective participants in a forthcoming second iteration of training in Port Phillip, and present information on the range of existing environmental groups, which they would research in the interim period. In a final session, participants reflected on their involvement in the first iteration, evaluated the education program, and collaborated in planning the impending information evening.

Research Outcomes

Despite the absence of a clear issue on which to engage in action research, some notable processes and outcomes were observed pertaining to psychological empowerment. Participants used their involvement to reflect on their life experiences and develop new insights and skills. This resulted in shifts in conceptions and knowledge, with attendant cognitive and behavioural change. People indicated that they were more confident, knowledgeable, willing to act, and some in fact took steps to become engaged in community participation.

The convenor of the local environmental action group indicated that her involvement had made her more analytical of her leadership performance. She was using the training notes to identify issues she needed to address, and the means to address them. Her involvement had also had a deeper, affirming psychological impact: 'Reading the summary notes sent out after each meeting validated my life experience and my practical knowledge'. She reported that her participation had stimulated an interest in engaging in further study.

A second member indicated he would set up environmental theatre group when he returned from an overseas study trip. He said his involvement in the training had motivated him to arrange his trip and raise the necessary travel funds. The third member of the first iteration, who had joined the project in order to gain confidence in public speaking, presented session on planning and elected to participate in stage two of Port Phillip study. Finally, a result of her involvement in the first iteration, the fourth participant, with no previous experience in community environmental action, joined a local environmental group, and began to investigate joining another.

The empowerment phenomena observed during the first iteration are

summarized in Table 2. They show the concentration of events at the psychological

level. Using Zimmerman's (1995) three components of psychological empowerment,

one can observe the bulk of psychologically empowered outcomes situated within the

intrapersonal component – such as enhanced self-concept and sense of efficacy.

Members reported appreciation of the power of adult discussion in fostering a critical

awareness of the sociopolitical environment, and improved skills in strategic action,

indicated psychologically empowered outcomes within Zimmerman's interactional

Table 2 Summary of Empowerment Processes and Outcomes Across Each Level of
Analysis, at the First Iteration

	Empowering Processes	Empowered Outcomes
Individual level	• Participant who took part in order to gain confidence in public speaking presented session on planning. • 'Reading the summary notes sent out after each meeting validated my life experience and my practical knowledge'.	Intrapersonal component: • Enhanced self-understanding of participants. • Participants reported enhanced leadership, group and communication skills. • "The group has given me direction" Interactional component: • Appreciation of power of discussion method in fostering critical consciousness. Behavioural component: • A participant joined first environmental group. • One participant used her skills to improve her leadership of local group. • "I perhaps have become more assertive in other areas of my life". • One participant from first iteration took part in part of second iteration and presented session on planning.
Organizational	• Participants collaboratively investigated local grassroots groups in their district • Presentations by all participants at Information Evening to promote second iteration.	• Sense of group belonging, cohesion and efficacy at completion of five sessions. • Participants stated that they had helped to generate knowledge: "By cross-referencing the information we developed with information already published in books, I saw that what we developed added to existing knowledge".
Community	• Convenor of local group applied her enhanced leadership skills to improve her group's performance.	• Participants' presentation of information at the Information Evening for the second iteration, provided a community education function and provided potential participants with important information to guide their own empowerment efforts.

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component. The range of actions taken also indicate psychologically empowered outcomes within the behavioural component.

In addition to evidence of psychological empowerment, the first iteration also resulted in positive changes at the organizational level of analysis. Participants identified that they had developed an appreciation of the complex issues involved in group leadership, the importance of communication and interpersonal support, and acknowledged the power of the discussion method as an adult learning strategy. They stated that whilst they initially had found it disconcerting to generate knowledge through their own contributions, they grew to find the discussion method extremely rewarding. Members identified the role of discussion in contributing to a sense of group identity and collective efficacy: 'By creating the information ourselves, the group has created more than what we were conscious of as individuals'. Initial unease over the use of the discussion method perhaps reflects the fact that for two participants, it was their first involvement in an educational forum since their didactic high school experiences. The following exchange highlights the power of candid peer discussion:

Person 1:   "I expected to meet more 'like-minded' people."
Person 2:   "It's been better for you in hindsight anyway."
Person 1:   "What do you mean?"
Person 2:   "Because if you had met like-minded people you may not have changed your perspectives."
Person 1:   "That's true."

In highlighting the value of reading written notes of the material participants generated at group meetings, it can be inferred that the communal process of knowledge generation also contributed to a sense of collective efficacy: "When I read the summary of the group meetings, I realized that we had actually generated a lot of

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information. By cross-referencing the information we developed with information already published in books, I saw that what we developed added to existing knowledge..." Participants were informed that the material they had developed would be included in training materials in subsequent iterations.

Their spontaneous decision to contribute to the subsequent information evening is seen as an important empowerment outcome for individual participants and for the group as a whole. A sense of group belonging was developed during the iteration, as evidenced by a range of statements made at the final review session. For example: "I may go on to join an existing group, or perhaps form a new one! I am not sure... I may find out that I don't like the people in other groups! I feel comfortable with you guys!" Two participants said they would join a particular local environmental group if a third did also. A distinct reluctance among participants to extinguish the group was evident. To provide an outlet for this sense of belonging, participants were invited to contribute their knowledge and experience during the second iteration.

Participants' decision to investigate and present information on existing environmental groups at the information evening established the potential for empowered outcomes at the community level. Equipped with this information, people attending the information evening were able to reflect on whether their particular environmental concerns were already being addressed, thus providing them with an important component of the AR investigative spiral. One participants' application of her improved leadership skills when convening her local residents' action group, is seen to represent both a psychologically empowered outcome and an empowering process at the community level of analysis.

Discussion

Many components of the adult EE model can be observed in the findings from this iteration. For example, all participants had presented with an environmental entry level variable of environmental concern. Ownership variables could be observed in the action group convenor's investment in her local issue, and the environmentalist's in-depth knowledge of environmental issues. Even the participant with no previous environmental experience showed a personal interest in committing to working on some local environmental issue – which she did by eventually joining a local group with which she felt some affinity and personal investment in the issues the group was established to address. All participants indicated that their involvement in the EE program had enhanced aspects of intrapersonal empowerment, such as their sense of personal and collective efficacy, and interactional empowerment (Zimmerman, 1995). Interactional components included participants' enhanced critical awareness about their sociopolitical environment, understanding the organizational dynamics of power and control, and improved decision-making skills. The group members also evidenced development of a psychological sense of community. Behavioural manifestations of empowerment were evidenced in members' enhanced sense of individual and collective efficacy; a reflective group culture; elementary stages of shared leadership and networking. Finally, empowered outcomes were observed in terms of the knowledge members generated and shared with others, and their increased levels of community participation at the completion of their short involvement in the research program.

The first iteration served as a useful exercise to test training ideas and explore the dual role of research program coordinator and education group facilitator. It

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became apparent that the researcher needed to develop an identity that would foster the psychological and collective empowerment of research participants, whilst also consistently meeting his own research needs.

At the commencement of the first iteration, in accordance with AR philosophy (Chesler, 1991; Kemmis & McTaggart, 1988), the researcher tended to defer his own research needs and power base in favour of participants. Ironically, in a reflection of the need to commence adult learning from 'where participants are at' (Brookfield, 1986), participants later indicated that they had been looking for direction from the facilitator at that stage. This tension between participants' expectations of a more directive education process, compared with the researcher's desire to share power from the beginning, may also indicate a cultural expectation that most education will by definition be didactic, in accordance with people's school experiences (Knowles, 1985). Indeed, it has been reported above that some participants indicated that they had initially experienced difficulty in coming to identify themselves as creators of knowledge – but that the realization they had done so was very empowering.

The researcher's deference of power could be partially explained as the process of coming to terms with the complexity and multiple demands of the action researcher role. However, it is felt that the absence of a presenting environmental issue on which participants could build up their skills in action research and group leadership, hampered the researcher's ability to reinforce his role in facilitating learning around action research, acting as a source of expertise and guidance, and collecting data pertaining to empowerment. In this regard, the findings supported peer education models used in HIV education (e.g., Puckett & Bye, 1987), adult

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education generally (Brookfield, 1986), and general models of community

participation (e.g., Perkins et al., 1996) which have argued that people need to base

their learning and involvement on an issue of direct personal relevance. Given that

people with an issue of direct personal relevance were waiting to participate in the

second iteration, it was considered that the adult EE model was worthy of adaptation

and transference to a second iteration.

Adaption of Approach to Second Iteration

Given role confusion experienced during the first iteration, an approach was

devised to establish the researcher's role more clearly at the commencement of

training, and stress the information-gathering nature of the research project

throughout the iteration. A more directive facilitation approach was adopted, in order

to provide initial guidance, maintain group energy in the instance of low group size,

and offer encouragement and support whilst members developed confidence in their

approach.

Core training material was developed to reinforce the information-gathering

nature of both the research and of grassroots organizing. Training content focused on

the interrelationship between information and empowerment (Manz & Gioia, 1983;

Rubin & Rubin, 1992). Training was tailored to engage participants in identifying

strategies to document their investigations and progress in accordance with the

shared principles of empowerment and AR (Zimmerman, 1995). In addition, the

guide to setting up groups was revised to incorporate material generated by first

iteration participants on AR, communication, leadership issues and group dynamics.

The thematic organization of the guide's contents was also improved. The revised

contents are included in Appendix H.

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CHAPTER 7

SECOND ITERATION

In order to capitalize on the momentum and waiting list generated by the first iteration, the second iteration was also based in Port Phillip, and commenced with an information evening in June 1997. (The agenda for this session is included in Appendix I.) As in the case of the first iteration, participation was characterized by steep attrition. Nevertheless, many of those joining the project had an explicit environmental concern, and remained throughout the iteration. Urban heritage was the environmental issue that stimulated ongoing participation and grassroots organizing. Training was formally evaluated in February 1998. Formal data collection for this iteration concluded in June 1998 with an evaluation held at a meeting to mark the discontinuation of the grassroots group. However, participants continued to provide information informally into 1999.

Research Participants

To achieve greater publicity for this iteration, the City of Port Phillip's Mayor was approached to provide publicity through Council's Community Update newsletter. Although the request was declined, this strategy did lead to a meeting with an interested Councillor, who later spoke at an education session. Recruitment involved inviting people who had placed their name on the mailing list to attend a general information evening. Promotional materials were distributed to agencies identified during the first iteration, and to local supermarkets.

As in the first iteration, attrition was a notable feature. A total of 11 people (four men and seven women) attended the information evening, including the four from the first iteration. Four of the seven people attending for the first time had been contacted via the waiting list, including the historical society Secretary. One person from the waiting list brought two friends. Only one person had responded to the general publicity. Several callers who had been unable to attend agreed to be kept informed of any grassroots activities arising from the second iteration.

Following the information evening, six people (three men and three women) took part in an initial group leader training session. Included were two community development students; a cartographer who was a volunteer for several environmental organizations; the environmental science graduate who participated in the first iteration; and the historical society Secretary. The President of this Society also attended. All were of Anglo-Celtic background, and had indicated during interviews that they were literate in English as their main language. Only one person had any experience in environmental organizations.

From this group, four attended subsequent education and training sessions. These were the community development students, the Society Secretary, and President. Only the Society members remained throughout the entire iteration; they later involved two other members of their management committee.

Research Process

The initial Information Evening was held so that: (i) participants from the first iteration could practice collecting information and presenting it to a meeting, to reinforce their involvement in an AR process, and to provide experience in a

community educator role; (ii) people who had been on the waiting list could meet the researcher and first iteration participants, and find out more about the environmental education project; (iii) people with a general interest in joining a group could find out more about opportunities in their local area; (iv) environmental issues on which people might like to develop action groups could be determined; and (v) the next leadership training program could be organized. Members of the first iteration described their research experiences, and presented information about a range of local environmental action groups. Local urban heritage and industrial waste minimization were identified as issues on which to base leadership training. All attendees were subsequently sent detailed minutes; contact details of all grassroots groups outlined by first iteration participants; and a revised information kit on 'steps for setting up a group', containing material generated during the first iteration.

Training commenced in July 1997 with a full-day workshop. Participants interested in waste minimization elected to target key employees to address the changes that companies could make proactively, rather than by being pressured to comply with environmental regulations. Historical Society members decided to investigate auspicing a general community participation project to encourage advocacy on urban heritage issues. Participants followed initial AR steps to engage in a reconnaissance of the basic facts and history concerning their environmental issue. The participant from the first iteration, who had joined the project to develop skills and confidence in public speaking, led a session on strategic planning. Participants identified a range of empowerment data for documentation, as listed in Appendix J.

Ten follow-up sessions were held between July 1997 and February 1998. In addition to general AR debriefing sessions, participants attended a core session on advocacy skills, and sessions on media skills and ways of working with Council. For the media skills workshop, the researcher secured permission to share the training material of a useful workshop he had recently attended, and engaged participants in developing press releases and rehearsing for press interviews. At the session on working with Council, a City Councillor provided information on how to access Council meetings, and provided a range of contact details, including her own. In addition, she encouraged participants to promote their action groups via the bi-monthly Community Update newsletter, and offered to provide liaison on this matter. Ironically, this was the publication to which the researcher had unsuccessfully sought access from the Mayor.

Research Outcomes

Waste Minimization Group Activities

During their time in the research project, the community development students engaged in several empowerment-oriented activities. They canvassed their ideas for educating and supporting industry and employees with the trade union movement and several key environmental and industry organizations. The students also approached friends and colleagues in an initial attempt to establish an organization to promote their ideas. An agreement was reached with a high-profile environmental advocacy organization to use their facilities in return for creating and providing a database of agencies and groups working with industry. The students withdrew from the project in late 1997.

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Urban Heritage Group

Shortly after training commenced, participating Society members expressed concern that their participation in the research program should be officially supported by the Society. In August 1997, the researcher attended meetings of the Society management committee and general members to explain the research goals, emphasize its collaborative nature, and offer to assist the Society in general organizational development. Research participants also sent all Society members a questionnaire to gauge their general skills and interests, and invite them to participate in forming an urban heritage interest group. About 20 out of 120 Society members returned questionnaires.

As a result of these actions, the Society's management committee approved the Society's involvement in fostering local advocacy on urban heritage, and two other committee members came to join the EE program. These were the Society's newly-appointed Publicity Officers: a husband and wife aged in their sixties with little prior experience in working with the media. The participation by these other committee members provided the Secretary and President with enhanced peer support and a sense of organizational commitment.

Participants decided to convene a public meeting in late November 1997 to establish a heritage interest group. They generated guidelines for establishing the interest group, and an agenda for the public meeting. This featured presentations by local council, and the Society's Heritage Officer – a consulting heritage architect. With the involvement of the Heritage Officer, members produced and distributed several hundred copies of a flier. A politician gave free access to his office facilities and provided some media contacts. The President and Secretary obtained coverage in

a local newspaper ("Help preserve St Kilda plea", 1997); a Publicity Officer also secured an interview. Two Councillors offered to speak at the meeting; Council later provided the council chambers as a venue.

A total of 46 attended the public meeting, considered a successful figure for a sunny Sunday afternoon. Approximately 20 were existing Society members, of whom several assisted at the meeting. About 25 people had no prior connection to the Society. It was the first time that the Society President had chaired a meeting of this nature. Two Councillors presented Council perspectives on urban heritage concerns. The Society's Heritage Officer gave a presentation of slides and photographs on sites of heritage value, both extant and lost. All speakers stressed the need for community advocacy to preserve remaining heritage. At the conclusion of the meeting, 10 people volunteered to help establish a grassroots group. This group subsequently became known as the Port Phillip Heritage Alliance. Three of these were new Society members. Significantly, most of were aged in their thirties and forties, providing the Secretary with the outcome she had originally desired. The Secretary described the outcome of the meeting as 'a miracle'. Another participant expressed amazement at the number and range of people who elected to form a group. This showed members that their concerns about urban heritage were indeed widespread.

Following the public meeting, members developed and sent evaluation forms to participants and received 10 largely favourable responses. The Society's Heritage Officer published an inaugural magazine-style booklet, which included a report on the formation of the Port Phillip Heritage Alliance. The booklet was sent to all Society members and the other people who attended the meeting. Early in 1998,

Council invited the researcher to participate in a Council forum to plan for the establishment of an 'eco-centre'. Alliance members were sent the 'guide to setting up a group', and an invitation for the convenors to make contact with the researcher if they wished. At a final session held in February 1998 to evaluate the second iteration, Society participants developed a strategic plan for their organization. They identified a range of strategies to improve their organization's image; expand the Society's young, active membership; and make the Society operations more effective.

<u>Psychological Empowerment of Participants</u>

At a forum held in February 1998 to evaluate the second iteration, participants identified a range of important personal learning outcomes, including: 'dealing with power and authority'; 'working with the media'; 'how to handle group members'; 'that the creation of new groups is a lot of hard work but not so hard to do'; 'confidence in running a meeting'; 'more about myself'; and 'ways to help improve the Society'. Participants identified numerous ways in which, through these leaning outcomes, they and their peers had changed personally. The Secretary stated: 'I'm not the fool I thought I was before! – I have the guts to do things... I actually believe I can achieve something.' Others identified that she had become more active as a member. Both she and the President were seen to have accomplished personal growth as a result of their participation. The President was seen to have enhanced his leadership skills. The Publicity Officers were seen to be speaking out more often, and more confidently. Finally, the Heritage Officer was seen to be 'easier to talk with – far easier to approach than previously.'

Table 3 summarizes the empowering processes and outcomes at and between

levels of analyses documented during the second iteration. One can observe the

complex ripple effect that the Society secretary's initial decision to participate in the

EE program had on other Society members, their organization, and the wider

Table 3 Summary of Empowerment Processes and Outcomes Across Each Level of
Analysis, At the Second Iteration

	Empowering Processes	Empowered Outcomes
Individual level	• Historical Society secretary developed a questionnaire to identify interests and skills, and sent it to members. • Active participation of individual Historical Society members to promote public meeting. • Newly-appointed publicity officers developed press releases and obtained interviews with local press. • One Society participant increased individual advocacy efforts. • Industrial group made approaches to organizations and individuals from industry. • Industrial group members approached friends and other students to join project.	Intrapersonal component: • Enhanced perception of participants' individual agency: – "I actually believe I can achieve something ... I gained the confidence to participate in, and even initiate actions that I considered totally beyond my sphere of experience, and utterly out of character with my natural inclination... [My involvement] will always stand me in good stead for any future group action I may become involved in" – Secretary. Interactional component: Improved awareness about ways of: • consulting membership; • organizing, promoting, conducting and evaluating public meeting; • working strategically with media. Behavioural component: • More assertive leadership of President. • Industrial group developed database of organizations involved in waste minimization.
Organizational	• Decision to hold public meeting. • Active collective participation of Historical Society members in organizing public meeting. • Organized and conducted successful public meeting with 45 participants.	• Promotional story published in local press. • Two Councillors spoke at public meeting. • Enhanced community profile of Society. • Increased Society membership. • Younger members at Society meetings. • Improved links between Society and other organizations, especially Council. • Neighbouring historical society joined SKHS. • Society meetings more effective. • Enhanced performance of Society Executive. • Improved atmosphere at Society meetings. • Enhanced relations between members.
Community	• Active networking between Society and local businesses, Council and other organizations when publicizing public meeting. • Resident contacted Alliance for advice on neighbour's planning application. • New group had stall at local festival. • Links established between advocacy group and local grassroots groups.	• Advocacy group established; recruitment of 8-10 younger people with skills and links to key agencies. • One founding member became actively involved in single issue urban heritage advocacy organization, the Esplanade Alliance.

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community. As in the case of the fist iteration, participants identified a range of psychologically empowered outcomes according to Zimmerman's (1995) taxonomy. Members identified that they had experienced a positive shift in intrapersonal phenomena, such as enhanced self-esteem and sense of self-efficacy. Psychologically empowered outcomes achieved within the interactional component can be inferred from members' engagement many strategic activities to promote their public meeting and involve key stakeholders. Members' individual activities served to enhance the level of organizational empowerment in addition to their own psychological empowerment, and created opportunities for general community participation. These empowered outcomes radiated between levels in both directions. For example, the formation of the Port Phillip Heritage Alliance gave the Society Secretary a strong sense of personal efficacy and achievement.

<u>Organizational Empowerment of Historical Society</u>

Participants clearly associated their involvement in the research program not only with increased levels of psychological empowerment of individual members, but with the associated organizational empowerment of the Society as a whole. One Publicity Officer made the following reflection:

> We have all been improved by our participation. We are all a little more confident. We have all improved as a collective, as well as individuals. We communicate better. We know each other better. We can agree to disagree. Many of the changes we have noticed are because we have got to know each other through our involvement on the new committee. However, the education group <u>did</u> make a difference. Being part of the education program helped us to get to know each other, more so than just being on the

committee. The education group did make a difference to the President and Secretary.

It was agreed that the Society had gone through a 'growth phase' since commencement of the second iteration. Participants had been told that the Society's image had been enhanced. By February 1998, 16 people had joined the Society since members began to promote the public meeting. A neighbouring historical society had joined, with complements about the Society's activities. The group recognized that they had helped the Society to develop stronger links with the community by forming links to businesses, community organizations, media, politicians, elderly groups, and other residents; and forging a closer relationship to Council. This momentum continued into 1999. The federal politician who provided access to his office facilities during the group's publicity campaign later made arrangements to join the Society.

By February 1998, participants detected more enthusiasm amongst Society members. Meetings were being conducted more effectively and with an improved atmosphere. Younger people, who had volunteered to establish the heritage action group, were attending Society meetings: 'This has impressed other Society members, and given them a psychological boost.' People were optimistic that the Alliance might strengthen the Society's prospects.

Community Empowerment: Formation of Port Phillip Heritage Alliance

The Port Phillip Heritage Alliance held its first meeting in December 1997. Present were the five members of the Society who had organized the public meeting, and the 10 people who had expressed interest. The meeting was chaired initially by the Society president, who then passed facilitation to two joint co-ordinators from the

range of interested people. The role of secretary was unfilled, and was accepted on a temporary basis by the Society secretary. Participants decided that the objectives of the Alliance were "to learn, identify, inform, publicize and take action to protect and promote the natural and built environment of the City of Port Phillip, and to support heritage groups within other areas."[2] Members' resources included skills in journalism, urban history, and town planning; advocacy experience in contentious local developments; links to the city's major newspaper; and contact with experts such as architectural historians.

The Alliance met monthly, with small working groups occasionally convening between Alliance meetings to discuss the group's direction and identify local issues on which to take action. Members discussed ideas for raising the group's profile, and shared information about a range of local developments. They drafted a letter to send to local dignitaries and key organizations, and held a stall at a local festival. A local newspaper was also approached to create a 'heritage watch'- style column. Yet by March, the Alliance was showing signs of disintegration.

Alliance members still had not formalized their goals or strategies; nor had they formalized group structure. The Society secretary was still acting as minute secretary. It appeared that members were experiencing problems not only at the level of the group's purpose and directions, but also at the deeper level of the group's identity and sense of unity (Dalmau & Dick, 1985). In June 1998, the Society Secretary reported that both coordinators had relinquished their roles, and the group

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[2]Minutes of initial steering committee meeting of the Port Phillip Heritage Alliance, 15 December 1997, p. 2.

had virtually disbanded. She expressed concern that this outcome would reflect poorly on the Society's efforts.

A final evaluation meeting was held in late June, attended by the two Alliance convenors and three Society members. With permission, the researcher led and recorded discussion. Both convenors agreed that during the six months of the Alliance, they had learned that they worked better as team members with the direction of a leader. Each added that they had taken on their roles under some duress. Participants agreed that the group had always lacked an immediate issue on which to focus. They felt that their goal of developing as an umbrella group for other heritage groups had been premature. It was noted that many Alliance members were already involved in other local groups. Furthermore, a natural alliance was emerging amongst existing local groups. Yet, all people present saw the short life of the Alliance as an overwhelmingly positive experience. The founding Alliance members had become Society members and formed friendships with the Society committee. All participants stated that they could draw on their experiences in their current and future community activities.

One Alliance convenor continued to keep the researcher informed in relation to local heritage issues in which she participated. In January 1999, she reported that she met regularly with two other past Alliance members, who were active in a local heritage action group. They had all agreed that it was because of the Society's public meeting that they had come to know each other. They firmly believed that this meeting had helped to create momentum for the development of a community of people concerned about inappropriate development and loss of heritage. On hearing

this feedback, the Society Secretary indicated her pleasure in knowing that "something good came of it".

Discussion

This iteration exposed the complexity of tasks faced in attracting community participation. Worthy of analysis are the attrition rate of participants at this site, the involvement of members of an existing organization in the research, and the need for a presenting issue to trigger participation.

Attrition of Participants

Despite a recruitment strategy being developed to attract participation by people with some free time and with limited experience in community participation, the iteration still drew mainly busy people who were already heavily involved in community activities. Many participants were already members of other groups and causes, and were trying to balance their existing commitments. Several people who withdrew from the program after a few sessions indicated that they had been too busy to continue, despite their interest.

An attempt was made to identify the reasons why so many initial callers to the research program had not proceeded. A brief survey form was sent to 16 people who had expressed interest in either the first or second iterations, but who had not joined the program. Respondents were asked to identify what it was that had influenced them to call about the program; why they had chosen not to take part; and to suggest ways to encourage people to get involved in community environmental education projects. (A copy of the survey form is included in Appendix K.) Sent in November 1997, three weeks prior to the public meeting on urban heritage, the

survey was timed to inform people of the option of joining grassroots groups being developed as the result of the second iteration, with an explanation that no further training would be conducted in Port Phillip.

Five completed survey forms were received. The main factors influencing these respondents to enquire about the EE program included the chance to gain skills, contribute to environmental awareness in the community, network with others, and participate in community action. The stated reason for all respondents not taking part had been their pre-existing commitments. Three of the five cited study commitments; another mentioned the pressures of running her own business.

Respondents' suggestions for ways to encourage people to get involved in community environmental education projects are outlined in Table 4. It is interesting to note that between them, these few respondents identified the relationship between individual participation and the broader social and economic environment in which they live, perceived shortcomings in existing environmental groups, and the need for creative incentives to encourage participation.

Table 4 Non-participants' Suggestions for Ways to Encourage People to Get Involved in Community Environmental Education Projects

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- Specific days related to specific issues: fun, community involvement on a community level.
- Have established groups for others to join or to act as examples.
- Financial incentive.
- Ideas/campaigns for fundraising to pay for projects.
- ... I think it is a good idea to create something different to mainstream environmental groups as their reliability and attitudes are not too enthralling.
- ... When society is unsettled, as it is with the current government, people are less likely to give of their time, and resources. When society is more secure, financially, legally, politically, etc., we're more inclined to broaden our interactions. Also while governments are making dramatic cuts to services that initially our taxes paid for, people are resentful of doing it for 'love'. So what the answer is, I don't know. Get a more benevolent, caring government!
- Continued exposure in local newspapers.
- Approaches through other angles, eg. art competitions as conducted by Earthcare St Kilda.

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Pratkanis and Turner (1996) highlighted the difficulties in encouraging Western people to get involved in grassroots organizations. To engage citizens in grassroots action, groups must attract the attention of people who are exposed to hundreds of advertising messages daily, and also convince them to part with the time and resources that they would otherwise devote to meeting their daily needs in an increasingly complex and demanding society.

Mention must also be made of the structure of the EE program itself. The program was intensive, and had the potential to run over a long period of time. Given their time commitments, it is possible that some people may have withdrawn from the project because the program offered no clear time commitment boundaries. This also highlights the importance of personal salience to ongoing participation; to engage in a learning program of this nature, people may have needed to see their participation as contributing towards empowered outcomes directly related to proximal issues in their lives and communities, such as the Historical Society member's investment in preserving the urban heritage of their district (Perkins et al., 1996). Interestingly, many of these members were retired and had more time available to devote to community participation.

Despite their analysis of the effects on participation of the pressures of modern life, Pratkanis and Turner (1996) did not mention the issues involved in attracting people with no paid work and too much passive 'leisure' time. Indeed, regardless of their employment status, alienation might be the fate of all citizens in technological societies (Heller, 1989, p. 4). Given that a person's perception of the environment, their social relations and level of psychological empowerment combine to influence their participation in voluntary organizations (Chavis & Wandersman,

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1990), it might be suggested that many people may be further alienated by their experience of being unemployed and poor, making it even more difficult for the community organizer to invite their participation. Despite efforts to target the many community agencies that disenfranchised people might use, and the media outlets to which people from across the social spectrum might pay attention, none took part in the Port Phillip iterations. A more personalized recruitment strategy might have been needed to make direct one-to-one contact with those people experiencing the least sense of community.

Issue of Student Participation in Research

A complication underlying the participation of the community development students was the overlap between their involvement in the research and their coursework requirements. Although both of these participants initially indicated that their participation was unconnected with academic requirements, it transpired that their plan to develop a database of environmental organizations dealing with issues pertinent to business and industrial waste minimization was to be submitted as part of their academic assessment. Furthermore, the female participant's use of the environmental organization's facilities proved to be part of her academic placement. By the end of their academic year in 1997, both participants had withdrawn from the research. Attempts to contact the pair to arrange exit interviews were unsuccessful.

When the students joined the research, it was considered that their presence would complement the efforts and group process of other participants who were taking part purely through the intrinsic motivation of working on an environmental issue of their choice. It had not been anticipated that these two students might be the only remaining people investigating industrial waste reduction.

Despite these complications, it should be noted that the two community development students often proved a valuable source of support, encouragement and creative ideas to the historical society members at research meetings – particularly on innovative ways to attract younger members to urban heritage advocacy and to the historical society. It might also be argued that their involvement in the research contributed in some way towards the development of a database that could aid the environmental movement.

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Organizational Issues
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The Port Phillip iterations raised several organizational issues. Firstly, one factor possibly affecting relatively small rates of participation was the lack of a high-profile local sponsoring community organization, with an active membership, from which to base the education program. A local adult learning centre and several neighbourhood houses also lacked available space or resources, with the result that the research could not directly involve regular users of these facilities. It was through the support of a local church that a training venue was eventually secured at virtually no cost, although no congregational members of the host facility participated in the research. Interestingly, it was through church networks that the historical society Secretary learned of the research program. It was considered that problems encountered due to the lack of an organizational sponsor would be resolved in the second site, with the active participation of the Migrant Resource Centre. The Centre had contact with a large number of local ethnic networks which could be drawn on for recruitment.

The second organizational issue relates to the effect on the research program of power structures within Council. As different stakeholders in the power hierarchy,

the Mayor and Councillor gave out different messages about the possibility of advertising in the Council newsletter. At a meeting with the Mayor prior to commencement of publicity for the second iteration, parallels were highlighted between the EE research goals and the community's expressed desire: (i) to be increasingly involved in Council decision-making; (ii) to improve the quality of the local environment – both natural and residential; and (iii) to enhance the sense of community in Port Phillip (City of Port Phillip, 1997). Despite the willingness of the publicity department to promote the EE program, the Mayor declined the request, ostensibly on the grounds that it would expose Council to similar requests from other non-Council organizations. Yet the Councillor encouraged participants to use the Community Update to promote their activities. This disparity between the points of view between Mayor and Councillor could have served to remind participants that 'small losses' could become small wins with adequate research to investigate the respective power bases of Councillors and the internal dynamics and communication structures within organizations.

The third organizational issue relates to the involvement by an existing community organization in the research. It had not been intended to engage people who were already members of organizations, particularly environmental organizations. This was due to the current poor image of many green groups in Australia and their loss of membership (Toyne, 1998); the perceived opportunity to encourage participation by people who did not want to be associated with any existing environmental organizations; the desire for the research to remain independent of any existing organization's agendas and roles; and the related opportunity to encourage participation by people who were not active in any

grassroots activity. For these reasons, a cautious approach had been taken to getting

involved in historical society affairs. However, by working with the Society to

consider environmental advocacy, the research demonstrated the contextual nature of

empowerment, and the potential benefits – and conflicts – of engaging with existing

community organizations to expand their focus to include environmental issues.

It emerged that the education process did not have to be restricted to

engagement with individuals not linked to any organization, but could also involve

assisting members of an organization to increase organizational empowerment

though sharing organizational intervention and change strategies. By engaging with

the historical society, members were able to enhance not only organizational

empowerment, but to contribute to what Perkins (1995) described as 'environmental

empowerment' (p. 771). However, the research also demonstrated the possible role

conflict and role overload, and tensions in the parent organization, that can emerge

when members of an existing, socially conservative, non-environmental organization

attempt to expand their activities to foster community advocacy and empowerment

around a specific environmental issue.

It became clear that the Alliance may have foundered at least in part by the

apparent loss of active support from the auspicing Society. Society members had

frequently expressed their concerns about getting overly involved in the active

management of the Alliance, and developing too many ongoing personal

commitments and possibly conflicting roles. Bound by a sense of protocol in not

interfering in the affairs of the Alliance, Society members had not passed whatever

understanding of strategic planning they had developed during their involvement in

the research.

The development of a collaborative partnership with the Society also demonstrated the multifaceted nature of the notion of 'environment', environmental education and the multi-level nature of empowerment. Had the historical society not engaged in the EE program, the link between urban heritage and environment, with the attendant implications for EE, may not have become manifest.

<u>Emergence of Salient Issue</u>

The outcomes from the Port Phillip iterations show the importance of having an environmental issue on which to base one's learning. Most participants at the first iteration wanted to learn group skills rather than their direct application. However, for the second iteration, urban heritage was the salient issue which precipitated community participation. Remaining participants in the second iteration were those with a specific interest in the application of their learning, such as advocacy on urban conservation. The people who engaged fully with the second iteration were concerned about preserving the local historical landmarks in the neighbourhoods in which they had spent much – and in some cases, all – of their lives. These participants already had a commitment to a related field (local history), and were keen to build on the link they perceived between history and heritage. They had a direct, personal investment in a local issue. It is suggested that these participants joined the project because they viewed it as providing an instrumental link between their immediate environmental goals and achieving a concrete outcome.

Interestingly, urban conservation is possibly one of the primary environmental issues facing the increasingly gentrified Port Phillip district. Many people are moving to live in the area for the ambience afforded by its architectural heritage, which, ironically, is under threat from opportunistic development

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capitalizing on the district's popularity (City of Port Phillip, 1996; Elder, 1998). The issue that precipitated community involvement, urban heritage and amenity, also proved to be a trigger for widespread community action throughout Melbourne during the research (Sutton, 1997a, b).

Upon a review of the second iteration, it emerged that Society participants could have benefited personally and politically from reflecting on the sense of meaning, place and community they derived from their relationship to their local neighbourhood, and developing a vocabulary that would have enabled them to advocate their environmental perceptions and concerns more clearly and confidently. These issues will be discussed in greater depth in Chapter Nine.

Postscript: These ideas were presented to a full meeting of the St. Kilda Historical Society in February 1999. In a further empowered outcome arising from this research, members subsequently approached the researcher to participate in their proposal to implement an urban EE program through the auspices of the City of Port Phillip. Staff in Council's community development unit reacted positively to an initial approach made by the researcher, and invited Victoria University's Department of Psychology to submit a research proposal. At the time of writing, it is anticipated that other community psychology students may continue this collaborative engagement of education and research with the Port Phillip community and the Historical Society.

CHAPTER 8

THIRD ITERATION

Preparation for the third iteration continued throughout 1997. The transition to the second site began in earnest in July. Training was timed to commence with an information evening in October. It was considered that by this time, participants in the second Port Phillip iteration would have completed basic training and would be planning to establish action groups, thus enabling the researcher to engage more fully at the second site.

Four leadership training sessions were held during the remainder of 1997 and early 1998, culminating in a review in March 1998. Attrition was also a feature of this iteration, reflecting cross-cultural issues, the entrenched nature of the environmental issues facing local residents, and attendant disempowerment. The iteration concluded in June 1998, when the sponsoring agency, the Migrant Resource Centre, held a public meeting to encourage local residents to make complaints about the pollution and environmental incidents that affected them.

This chapter will document the trajectory of events that unfolded during this iteration, and discuss their implications in terms of the interaction between the researcher, host organization, and wider setting; the role of media in participant recruitment; and the role of proximal, current political events in stimulating community action.

Research Site

Altona is an industrial district in western Melbourne. It is characterized by Australia's largest petrochemical refinery (Hill, 1991), and dozens of affiliated industries, employing thousands of people (Priestley, 1988). Amidst this industrial sprawl are open spaces and several suburbs, including Altona North, site of the sponsoring agency.

General History

Before the 1920s, the land currently occupied by Altona and surrounds was either used for agricultural purposes or was wetlands (Hill, 1991; Jiricek, undated). The Commonwealth Oil Refinery was established in Altona in 1924 (Priestley, 1988). Residents' concerns about industrial pollution began with an oil spill two months later. In that same year, the Altona Progress Association demanded that something be done about a sickening sulphurous smell released into the surrounding atmosphere during refining process. In 1928, the Association complained about the detrimental effect of industrial discharge on the local fishing industry. According to Priestley, industry simply piped the discharge into the Bay at a distance from local residents.

The lack of adequate buffer zones between industrial and residential areas has long been seen as a serious problem (Jiricek, undated). When the petroleum refining plant was built in 1946, the nearest residential area was one kilometre away, at the periphery of Melbourne's urban development. The refinery was surrounded by a non-residential buffer-zone, according to the urban planning code of the day. Yet, as the industrial zone expanded, so too did demand for residential land adjacent to existing services. What followed was "a breakdown in the enforcement of these planning

controls (or perhaps they were of such quality as to be unenforceable)" (Cooper &
Wade, 1986, p. 3). As a result, surrounding residential areas have expanded into the
safety buffer zones, including right up to the northern boundary fence of the refinery.

A power station's use of coal briquette fuel, and the briquette dump it
established in 1949, caused severe local problems with sooty black dust, which
persisted until the early 1970s (Priestley, 1988). Ironically, the Housing Commission
planned to convert part of this site into high-density public housing for 5,000 people,
despite the site's close proximity to large industrial sites. Altona Council frequently
criticised the Housing Commission's preparedness to house newly arrived migrants
in a standard of accommodation below that expected by most Australian residents.
Council advocates criticized the Housing Commission's seeming view of migrants as
'factory fodder' (p. 255) and urgently sought the inclusion of social amenities such as
kindergartens and youth centres.

Australia's largest petrochemical complex was developed in this region
between 1961 and 1966, comprising seven plants (Priestley, 1988). Despite the loss
of local wetlands and wildlife, and appearance of an orange glow in the sky from the
new waste flare, residents associated the new industry with technological
benevolence and optimism (Hill, 1991). The new Housing Commission estates, built
alongside the chemical complex, offered space from the congested inner city
working-class neighbourhoods. "All that open space, even with a petrochemical
complex in full view, offered nothing else but prosperity, promise" (p. 14).

By 1972-73, there were 66 factories in the area, employing over 5,500 people,
many of them local residents (Priestley, 1988). Whilst the employment opportunities
were welcomed, concerns were frequently raised about industrial pollution.

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According to Hill (1991), an underlying cause of environmental problems has been industry's tacit agreement with government to develop in areas 'remote' from population centres and dispose of their waste 'as best they could', but as economically as they could, close to the site. Near the Complex, local eel and fish populations declined as industrial effluent was dumped into creeks and surrounding paddocks. Air pollution monitoring did not begin until the advent of the Environmental Protection Authority (EPA) in 1975, whilst monitoring of local water pollution did not begin until 1981 (p. 25). Industry tended to monitor their own pollution levels, at standards set according to the phrase used then by both industry and the EPA: "the maximum extent achievable by current technology" (p. 26).

As a reflection of indefinite environmental standards and the close proximity of residents, pollution problems persisted into the 1980s. Cooper and Wade's (1986) survey of 199 Altona residents in 1985 revealed that 92% felt that pollution was a problem in their area, with 21.6% viewing it as a serious problem. Concern was felt equally across gender, ethnicity and age. Over one-third of residents reported that pollution affected the times they chose to do the washing. Health problems stemming from pollution were identified by 42.3% of respondents, such as breathing difficulties (42.2% of these respondents), nausea (31.6%), eye problems (26.6%), skin problems (12.1%) and hearing (7.5%). Air pollution controls were seen as inadequate by 64.4% of respondents; noise pollution by 46.8%; traffic pollution by 35.1%, and water pollution by 30.6%. No less than 83.9% of respondents indicated that living near the petrochemical complex had a detrimental impact on their safety and security. The same proportion of residents was unaware of any safety procedures put in place by authorities to deal with industrial disasters.

On the personal importance of the complex and surrounding industry to employment, 19.1% of respondents had moved to the area for employment reasons; 13.6% of respondents had a household member working at the Complex. The Complex was seen by 56% of respondents as having a detrimental effect on the resale value of their homes. Further expansion of the Complex was opposed by 63.8% of respondents; 50.7% of respondents indicated that they would still oppose expansion even if it were to provide more work. Over 61% indicated they would move away from the effects of the Complex given the opportunity. Paradoxically, 62.8% of respondents said they had moved into the area because they liked it, 60.8% had relatives living there, and 29.6% had moved there to take advantage of cheap land. It might be suggested that the tension inherent in paradoxical relationship has been exploited by the petrochemical industry (Hill, 1991).

Industry's frequent collective response to environmental complaints has been to engage in acts of corporate citizenship (Hill, 1991). For example, financial donations from the Complex saw surrounding swampland converted into facilities for local residents, such as football grounds and a recreational lake. Yet the Italian Soccer Club, granted permission by the City of Altona to build a soccer oval adjacent to one major company, was denied access by the State Government on safety grounds. The owner of the land leased by the Soccer Club issued a writ against the chemical company and sought to have the offending industrial apparatus demolished. A later review of the safety issues involved in residential co-location with industry, recommended that the term 'dangerous industry' be avoided by the petrochemical industry (p. 31).

According to Hill (1991), many residents, living in the shadow of an industrial disaster, have increasingly taken on the mantle of 'fringe dwellers'. (p. 30). He and his parents' generations experienced issues relating to the "poisonous presence of a petrochemical complex" and an ongoing biographical, working class relationship to the industrial plant and its multinational owners.

Sponsoring Organization

Altona North abuts the petrochemical complex; most residential development dates since the 1950s. The iteration was located at, and sponsored by, the Westgate Migrant Resource Centre Inc. (MRC), a government-funded, community-managed agency providing services to migrants in this district. The MRC provided a location and setting from which to recruit potential community leaders, not only from its pool of members and clients, but also from the general community.

The MRC was established in 1972 and has been a continuous presence in the district, often in spite of funding difficulties. In 1992, the agency obtained secure government funding, and a Coordinator position was funded in 1995. At the time of the research, the MRC employed community settlement workers, a community development worker, and two part-time administrative assistants. In addition to providing relief and settlement support to migrants, the MRC maintains a liaison role with other services to ensure their effective coordination. It also encourages the development of various ethnic communities in the area. Amongst the MRC's stated objectives is the carrying out of research and policy development to promote the full citizenship participation of people from non-English speaking backgrounds, "including in social action" (MRC, 1998, p. 2).

Thirty-four percent of residents in this district are from immigrant backgrounds. This figure rises to 49% for Alton North (MRC, 1998, p. 9). In 1997, the MRC provided services most frequently to people born in Croatia, followed by Bosnia-Herzegovina, Australia, Macedonia, Lebanon, Malta, Vietnam, Slovak Republic, West Bank, and Serbia (p. 19). Whilst the most frequent first language was Croatian, the second was English, followed by Macedonian, Arabic, Maltese, Slovak, Lebanese, Vietnamese, Malaysian, and Serbian (p. 20). Interpreters were usually required for casework. Client age ranges most frequently supported included 31 to 40, and also 56 to 65. Most clients had been in Australia for 10 years or more. Community groups using the MRC included Vietnamese senior citizens, a Lebanese women's group, a Maltese community association, the Baha'i community, Macedonian senior citizens groups, Greek senior citizens, and Croatian senior citizens.

According to the MRC's 1997 Annual Report, the treasurer and public relations officer, acting as the agency's representatives on the local industries' community consultative committees, had "spared no expense in advocating for inclusiveness in these companies' relationship with the surrounding community" (MRC, 1998, p. 8). The Report noted that it was the treasurer's "credibility as a community representative" on the consultative committees that resulted in a company making a "significant" donation for equipment, which was used to purchase a sound system (p. 8). The Report also stated that the industrial complex environmental officer arranged to translate some information for inclusion in their community consultation newsletter. (According to MRC personnel, this was not enough to enable people from non English-speaking backgrounds to read the entire

newsletter unaided.) In another development in 1997, local industrial companies installed two telephone hotlines at the MRC, to alert personnel in case of an emergency.

Transition to Second Site

In adapting the education content and process for this site, consultations were held with several members of the MRC management committee, the Coordinator, community activists, and representatives and support workers from a range of migrant communities. These informants commented on the training program and draft publicity material, and helped to publicize the education program through their networks.

Adaption of Training Material

The 'guide to setting up groups', compiled with participants at the first site, was modified to suit this new setting. The MRC collaborated in the production of a series of one-page handouts in plain English, mostly in bullet-point form, each of which addressed a particular facet of group development. Drawing on feedback from Port Phillip participants, some of whom had said that the guide was too large and overwhelming to read all at once, these handouts were designed to lead discussion, with copies to be distributed at the completion of each training session, so that participants could compile their own guide. The pace of topics presented would reflect participants' learning rate and the group energy of any particular training session. After each meeting, participants would be sent feedback in which their documented comments were integrated under the headings given on the handouts.

Target Population

Early in the development phase, MRC personnel suggested that training needed to be tailored to encourage people simply to participate in groups, rather than attempting to teach them to be group leaders. They noted that regular MRC users tended to be older, active within their own migrant networks, but unwilling to speak out in the wider community. Many had come from countries that had been controlled by repressive regimes or dominated by conflict or war. MRC personnel also cautioned to expect few people at any evening meeting; the district was described as very quiet after dark, with few public transport options available. A local environmental activist was approached who had collaborated with the MRC several years earlier in community action, also over residents' concerns about industrial pollution. She said that local people had lost their confidence following this experience, and now believed that change had to come 'from the top'.

Whilst the research had aimed to recruit MRC members, the intention was also to attract other residents from outside the MRC's ranks. These included local residents not involved in the MRC, such as younger people, perhaps Australian-born, who had some participatory experience, and might be interested to learn to encourage the participation of MRC users and other residents. The research also aimed to attract people from other districts in the Hobson's Bay municipality, including the increasingly professionalized Bayside peninsula suburb of Williamstown. Publicity was aimed at fostering interaction between MRC members and middle-class Anglo and second generation migrant residents of surrounding districts.

Recruitment Strategy

Publicity commenced in September 1997. It was originally planned that the project would be described at several meetings at the MRC in September. The agency had organized these meetings to enable a local industry representative to consult members of the various migrant community support groups that met on site. It was envisaged that the research program would be described after the industry representative had spoken, making full use of the interpreters brought in for each migrant group. However, these meetings were cancelled at short notice because industry declined to pay for interpreters. Publicity relied on posters, fliers and media coverage, and word of mouth at the MRC.

Fliers and posters were distributed to a wide range of agencies, including the MRC, community centres, libraries, government welfare agencies, churches, local politicians, and migrant support agencies. All publicity material invited people to attend an information evening in mid-October to learn more about the project. Contact telephone numbers were provided for both the researcher and the MRC.

Concerned that the Port Phillip press had failed to publicize the research because they had not received the information in an acceptable, appealing form, the researcher attended a workshop on working effectively with the media. Conducted by the University's media officer, content included news values, effective press release production, and strategies for effective interviews (this material was then shared with second iteration participants). The media officer later provided assistance in preparing and broadcasting media releases to promote the third iteration. An interview was subsequently conducted by a journalist representing numerous local publications. Several short articles appeared in local papers with titles such as

"Migrants urged to 'speak out'", and "Teaching migrants to speak out and lead". In addition, mention of the training program was secured in the local Council newsletter.

Research Participants

Sixteen local residents attended the information evening, including two MRC committee members; nine Macedonians; two female Maori organizers of an association for Polynesian people living in Victoria; and three Anglo-Australian residents. People's ages ranged from mid-adulthood to old age. Many of the older Macedonian participants had difficulty speaking English; some had difficulty writing their names. Non-Anglo participants were active members of the MRC; the Anglo residents had seen the story in the local Council newsletter. Participants from the second iteration at Port Phillip had been invited to consider sharing their experiences with prospective participants at the Altona information evening. However, despite the interest of two members of the Historical Society, difficulties in accessing public transport after hours precluded their involvement.

Participation at the four subsequent leadership education sessions progressively decreased from 12, to 11, three, and, finally, two participants, each of whom convened migrant community organizations. Following a review of initial training, a public meeting held in June 1998 attracted 12 participants, many of whom had attended the initial information evening.

Research Process

Given that some people attending the information evening might have felt under threat from surveillance in their countries of origin, permission was sought to

record people's voices and take notes. Participants were invited to identify local environmental problems which could form the basis of an action group. Problems included smells from nearby industry, and the general spread of industry into residential areas. The MRC treasurer described his participation in community consultation meetings organized by local industry, and encouraged other residents to join him in informing industry of their concerns. Several indicated they were interested to participate in further training.

Four follow-up sessions were held between October 1997 and February 1998. The planned content areas of each meeting are included in Table 5. Discussion often focused on the industry community consultative meetings attended by MRC personnel. MRC committee members spoke of their sense of isolation and powerlessness, and inability to challenge some of what they witnessed at these meetings, despite their expertise as professional tradesmen and residents. They were encouraged to consider establishing a residents' action/support group, based at the MRC, from which to draw people to attend the industry meetings. A planned power

Table 5 Planned Content Areas of Education Workshops Held During Third Iteration

Topic	Content areas
Needs Analysis	• determining the need for a local group, • organizing and conducting the first meeting, • basic strategies to ensure effective communication
Strategic Planning	• identifying long-term aims, shorter-term objectives, and immediate strategies • using AR to learn from outcomes
Advocacy Skills	• sources of power and authority in self, group, and others • rights and responsibilities of people in power • role plays: negotiating, making a complaint, asking for help
Review and Planning	Review of 1997 training and planning for 1998

audit on the industry community consultation process was made difficult by low attendance at the third session and heatwave conditions.

The fourth session was held in late February 1998, following the summer hiatus. Despite all previous participants being invited to participate in planning sessions for 1998, only two people attended, again during heatwave conditions. It transpired that the meeting date was a religious festival, and that many participants would have been at church. The Maori community organizer said that she had passed what she had learned about grassroots organizing to other members of the Polynesian community, and that she now wanted to encourage them to engage in environmental advocacy. The Public Officer felt that he already had leadership skills by virtue of his leadership of a migrant organization. Secondly, he considered MRC personnel sufficiently organized with respect to environmental issues, because of their involvement in industry community consultation meetings. He indicated that to participate more confidently at these meetings, he most needed information on the chemical processes industry employed and the potential pollutants. He argued it would save him time and effort if independent experts on industrial chemistry could give such presentations at the MRC.

To assist the Public Officer, the Maori organizer agreed to attempt to locate the information he sought about a particular chemical process, and/or identify a suitable expert to speak at the MRC. Upon calling one high-profile grassroots environmental organization, she discovered that the staff member with whom she spoke had already met the MRC Publicity Officer at a community liaison meeting. She later commented to the researcher that MRC personnel should organize speakers

themselves, given that they appeared to be 'sitting' on information about their activities and contacts.

Review of Initial Training Sessions

The next meeting, planned for early March, was cancelled, due to several apologies and heatwave conditions. The researcher met with MRC personnel shortly afterwards to review the program.

MRC Perspectives

Reflecting on the attrition of participants, MRC committee members argued that the migrant community were currently not ready or willing to be associated with an education program that encouraged them to take collective action. They mentioned that residents were still wary of environmental action, following political conflict several years before. Group leadership and development education was seen as inappropriate for residents' present levels of psychological and community empowerment. They suggested that people were interested, but did not want to go to any meetings. Residents currently expected others to do the work.

In accordance with the views of Publicity Officer, committee members present felt that local residents needed general technical information on how industrial systems worked. They even suggested that the researcher might investigate and present this material himself. They also proposed that people could be located who could run some general information sessions on industrial processes and the chemicals that can be released into the environment. It was suggested that training which alternated information sessions on practical issues pertinent to local residents' lives, with sessions on research topics such as advocacy, would be more likely to attract residents and gradually establish a basis for collective action.

When approached for her views on the training outcome, the Coordinator suggested that people had stopped attending education meetings because they lacked confidence. She felt that older migrants in particular had become quite submissive as part of their adjustment to, and survival in, Australia. She argued that education meetings should have been followed by one-to-one encouragement. Despite MRC personnel's argument that the migrant community were currently not ready or willing to take collective action, the younger Maori community representative had attended most EE sessions, and had indicated her willingness to attempt to lead her community into community action on environmental issues. In some ways, the education sessions on establishing a grassroots group had successfully identified a potential environmental group leader. However, she was already heavily involved with her own community.

The researcher agreed to seek people, initially at his university, who could present talks at the MRC. After some personal disquiet about this modification of his role, he concluded that, for several reasons, he would still remain a facilitator of empowering experiences. Firstly, his willingness to re-adapt the EE program demonstrated to the MRC his commitment to develop education options that matched their perception of community needs. Secondly, involving university personnel could increase links between the MRC and the university community, creating opportunities for future collaborative research. Thirdly, as some university staff were involved in local grassroots environmental groups, linkages might be developed between the MRC and grassroots activists. Several academic staff with interests in local ecology, toxic waste, and general environmental education subsequently declared their interest in presenting. Some indicated that they could use

this opportunity to consult migrants and invite residents to participate in their projects.

Community Organizers' Perspectives

Two grassroots activists were contacted during this review period, for their reflections on the training outcome and for suggestions about suitable speakers. The first was the convenor of an action group of residents concerned about the nearby storage of hazardous chemicals, recommended by an academic environmental scientist who was an active member. The second informant, contacted again at the convenor's suggestion, was the veteran environmental activist who had previously worked with the MRC.

The convenor had developed a detailed understanding of industrial chemistry, and offered to speak at an education meeting. However, she felt that the MRC might consider her position too political. Both activists were sceptical of the industry-run community consultation meetings attended by MRC committee members. The second activist felt it was a useful public relations tactic for companies to have a 'local migrant' on the committee. The convenor also considered that the Council was "in the pocket" of industry.

Whereas the hazardous chemical action group had formed in response to the explosion of hazardous chemicals stored adjacent to inner-western residential areas, the host district was characterized by "huge" sleeper issues, such as groundwater contamination. The convenor felt that many people had withdrawn from the debate on environmental issues because they could not face the reality of living on contaminated ground. She also suggested that residents would not wish to experience the ostracism that could occur if, by raising their concerns, real estate values were to

decline. She noted that most migrants in Altona and similar districts were older, their children having moved to more affluent suburbs, and less likely to take political action. No action had resulted from other migrant meetings at which she had spoken.

The activist revealed that in 1989 she and her students had interviewed residents, organized a public meeting attended by several hundred people, and established a grassroots group, which was active for four years. The group aimed to compel industry to improve their environmental performance, and refrain from encroaching into buffer zones near houses and schools. According to this informant, industry initially attempted to intimidate and dismiss the group. One company had attempted to scapegoat the group by threatening to move offshore, with resulting job losses. Industry's next move was to establish a community consultation committee. Up to 12 residents were drawn into attending a regular, exhausting, consultative process. Their historical distrust of the main company was only deepened by industry's restriction of residents' access to information (Tonge, 1995). Tonge noted that residents were even prevented from bringing their own experts to the community liaison committee meetings, which were dominated by industry's in-house experts. They were told that only residents could attend these meetings, and only in an informal capacity.

According to the activist, as the community found its voice, public relations staff were employed specifically to work on 'damage control'. Local companies began to provide sponsorship money to local kindergartens, schools, and community groups. Industry eventually wore down the community's resistance. The local community got tired; meetings were felt to be ineffective and distracting. By late 1993, local participants had almost entirely withdrawn from the community

consultation process, frustrated by industry's legal immunity from having to respond to residents' concerns or complaints (Tonge, 1995). Although local efforts eventually died down, local people did force industry to admit that there were problems needing to be addressed. The activist said that there had been advances resulting from the community action – such as the appointment of environmental officers. In contrast to the action group convenor, the activist argued that the community would not see their previous activism as a failure or waste of effort: residents were simply currently tired and preoccupied with economic survival. They knew that industry could threaten job losses as an effective bargaining tool.

Both informants were equivocal about the MRC's proposal to run general community education sessions such as 'how the industrial plant works'. The grassroots convenor suggested that the MRC initiate a 'neighbourhood pollution watch' by encouraging residents to monitor the number of environmental complaints made to authorities, and using the data to challenge authorities to act. The activist preferred to see an ongoing local group established, based at the MRC, which could act if and when needed. The MRC needed to find out what residents wanted, and perhaps help them set up a group. She suggested that one strategy the MRC could adopt to avoid censure from industry would be to canvass local residents for the stated purpose of identifying issues to present to the consultative meetings. Community development students could again interview residents; people could also meet at the MRC to discuss their concerns. She believed that the MRC would not allow the migrant community to be compromised by industry sponsorship.

Although these ideas were more in line with the 'issue-focused' EE research model, concerns existed as to their feasibility, given time constraints and the need for

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MRC sponsorship. Minutes from these discussions were forwarded to the MRC for their deliberation, and a meeting organized to provide feedback on progress towards securing specialist educators.

Impact of Toxic Waste Dump Approval

It had been assumed that a casual meeting with one or two MRC committee members would focus simply on making general arrangements for community seminars. Instead, three committee members and one other migrant community representative attended. It emerged that the state government's recent decision to approve a proposal to develop a toxic waste dump in a nearby suburb, had galvanized the MRC into committing to social action.

The toxic waste proposal had been a source of strong protest by Werribee residents, in collaboration with their municipal Council. An active residents' group had engaged in a sustained campaign to highlight perceived dangers to the substantial market gardens nearby, and the detrimental overall impact the decision would have on western suburban communities (Lyall, 1998). Strong, candid views were expressed by MRC personnel about the government's disinterest in the western suburbs, as signified in the toxic waste decision, and the pollution that industry generated in the district. They expressed interest in encouraging people to make the 'ineffective' Environmental Protection Authority work harder.

MRC personnel had spent some time reflecting on the feedback provided of activists' and academic researchers' views. They agreed that industry community liaison meetings were a ploy to wear down the resistance of local residents, but said that they felt they needed to go, if only to maintain a presence. When asked whether industry's recent donations to the MRC might be construed as attempt to

compromise the MRC's integrity, the president intimated that it was more important than ever for the MRC to lead community advocacy. The president agreed that Council was very much in the thrall of local industry, but was adamant that the MRC should compel Council to promote community advocacy. Whereas MRC personnel had previously argued against education meetings being 'political', all were now adamant that they should be. They stated that meetings should be organized to encourage local residents to learn how to complain, to become more assertive, and to take action.

Public Meeting: Making a Complaint

MRC personnel decided to host a public meeting in late June 1998, for local residents to discuss their environmental concerns. In another change of direction, they resolved to invite the involvement of local environmental activists. An approach was made for the Werribee residents' toxic waste action group to make a speech at the public meeting, with particular interest shown in securing a migrant representative. The convenor of the hazardous chemicals action group indicated she would speak; the Council environmental officer was also contacted.

The MRC committee drafted the wording for a flier, presenting the public meeting as a university education seminar to ensure that the MRC be seen by industry as neutral. Fliers were sent to community agencies, and to people who had attended initial education meetings. The MRC delivered over 2,000 fliers to local households. A press release was developed with the MRC and sent to local media, inviting both migrants and non-migrants to the public meeting. It highlighted the environmental disturbances regularly caused by local industry and gave a list of agencies that people could call, including several emergency hotlines and the MRC.

People were encouraged to document the time and nature of the disturbance, and who they called. The publicity attracted coverage in three community newspapers and the Council newsletter.

Twelve people attended the public meeting on a cold, wet winter's evening. These included a spokesperson from the residents' action group opposing the proposed toxic waste dump; the activist who had helped establish the action group in 1989; and the environmental affairs officer from a local chemical plant; six regular members of the MRC; a young Anglo Australian who had previously received assistance from the Treasurer over an environmental problem; and two migrants living in an adjoining district, with no prior contact with the MRC, both of whom were extremely aggravated by industrial noise. The Werribee residents' toxic waste action group spokesperson, an Anglo-Australian, highlighted the role played by people of migrant background in the Werribee district; stressed the significance of resident advocacy; and described her group's important role in encouraging and supporting members and residents to speak out. She, the industry environmental officer, and MRC treasurer all stressed people's right to complain, and their safety in leaving their contact details. The Treasurer emphasized the MRC's defacto environmental advocacy role in the absence of a local grassroots group. He indicated that if residents did not want to give their contact details to a company or authority, they could call the MRC instead. He and the industry environmental officer each undertook to pursue the industrial noise complaint.

Research Outcomes

In August 1998, MRC personnel reported that because there had been so much follow-up to the June public meeting, there was no need to proceed with any more education meetings. The MRC treasurer was delighted by these developments. He said of the public meeting: 'We did more than I thought.' He agreed that the MRC had made important steps towards fostering psychological, organizational, and community empowerment, evidenced by: (i) the MRC's new connections to other community organizations; (ii) the increased concern shown by the major power holder (the chemical complex) for perceptions held by residents from non English-speaking backgrounds; and, not least, (iii) the increased use of the MRC by residents as a conduit for making personal environmental complaints.

The Treasurer expressed an interest in developing a research program, in collaboration with the university, to investigate the impact of industry on health indices in the area. In the meantime, he was urged to keep records of all the complaints the MRC had received since the public meeting was advertized and held, in order to compile an independent record of complaints. At that stage he was relying on the official records held by the chemical complex. It was suggested that by keeping independent records, it would show the central role played by MRC as an independent advocate with a high level of community trust. This would add weight not only to the MRC's power base when dealing with local industry, but also to any proposal for research funding to study local health indices compared with rest of Melbourne.

Empowerment phenomena summarized in Table 6 document the manner in which the MRC's decision to sponsor the EE program fostered the psychological

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empowerment of their members and other members. Although outcomes within the intrapersonal and interactional dimensions were less evident than in the previous iterations, the MRC provided clear evidence that the public meeting had fostered a clear behavioural outcome, by encouraging people to engage in individual acts of advocacy. The MRC's sponsorship of the public meeting also expanded their organization's influence in the community, met their organization's stated objectives, and encouraged networking, shared understanding, community building, and strategic alliances between elements of the MRC's constituency and the wider community. As in the first iteration, a participant who was already convening a group used the training to enhance her group's effectiveness. This also demonstrates the interactive effects at and between psychological, organizational and community levels of empowerment.

Psychological Empowerment

Despite the seeming lack of overt outcomes during the trialing of the education model, many subtle individual and collective outcomes occurred. Despite the apparent mis-match of the peer educator training model with the setting, the MRC Coordinator nevertheless argued that to have initially engaged large groups of migrants in extended discussion, as a guest Anglo presenter, was a very positive outcome. An aged Macedonian man with limited English succeeded in translating the stages of the AR cycle into Macedonian phrases that he understood. The Maori participant used training material to lead her own group through evaluation and organizational planning.

Before the June 1998 public meeting, the MRC received approximately 25 phone calls from residents complaining about local environmental problems. Many

Table 6 Summary of Empowerment Processes and Outcomes Across Each Level of Analysis, At the Third Iteration

	Empowering Processes	Empowered Outcomes
Individual level	• MRC treasurer distributed 2,000 fliers to promote June 1998 public meeting.	Intrapersonal component: • Participant with limited English gained insight from attending one meeting on AR. Interactional component: • Critical reflection amongst MRC members on toxic waste issues; commitment to strategic social action Behavioural component: • One participant used training material to lead her own group through evaluation and planning, and expressed strong interest in taking part in future research activities. • Prior to June 1998 public meeting, MRC received about 25 phone calls from people detailing environmental problems. • Following public meeting, 10-15 people called MRC regularly to follow up on the initial environmental complaints they made.
Organizational	• Public meeting held in June 1998 to encourage residents to discuss their environmental concerns and learn ways of making complaints.	• MRC obtained publicity in local Council newsletter, resulting in some recruitment. • Commitment by MRC President and Secretary and representatives from Greek and Anglo-Indian communities to proceed with advocacy-oriented public meeting June 1998. • Enhanced community profile of MRC.
Community	• Involvement of Council and media in promoting EE program and public meeting • Participation at public meeting of ten residents; guest speaker from toxic waste action group; veteran community activist; and environmental officer from the Complex.	• As a result of June 1998 public meeting, a neighbouring environmental group asked MRC to help locate Lebanese and Greek speaking interpreters, to aid group's advocacy efforts. • Increased apparent concern for NESB residents by major power holder (chemical Complex). The Complex interviewed local residents to explore their perceptions. One refinery asked MRC to help locate interviewees from four nationalities living nearby. Interviewees paid.

people had declined to leave their name or address. Since the meeting, between 10 and 15 people had been calling regularly to follow up on the initial environmental complaints they made upon seeing the original publicity material.

Organizational Empowerment

Demonstrating the psychological-organizational empowerment interaction, MRC personnel had followed up calls received before and following the public

meeting. In one case, the president had raised an issue with the Council Mayor. Although she had not attended the June public meeting, the convenor of the residents' hazardous chemicals action group asked the MRC to help locate Lebanese- and Greek-speaking interpreters to assist the grassroots group with its own activities.

Community Empowerment

Whilst the main impact of the educational intervention was felt at the psychological and organizational levels of analysis, two community-level outcomes were evident. Firstly, following the June public meeting, a neighbouring environmental group asked MRC to help locate Lebanese and Greek speaking interpreters, to aid group's advocacy efforts. Secondly, a result of the attendance at the public meeting of the industry environmental officer, the chemical industry decided to interview local residents on their perspectives. The MRC was asked to locate people from four nationalities living near the plant. The industrial consortium supplied their own interpreters and interviewers, but paid interviewees a reasonable fee for their participation.

Discussion

A strong feature of this iteration was the effect of the nature and timing of information divulged by participants and key informants, organizational dynamics, and historical factors. That the outcome of this iteration strongly suited the setting can be seen as an example of the power of AR to develop trustful relationships between researcher and participants, and an educational intervention with a high degree of ecological validity.

Timing of Information and Ecological Validity

A fascinating feature of the third iteration was the nature and timing of information disclosed by informants inside and outside the MRC, and its impact on the ecological validity of the intervention. In the early stages of engagement with the host setting, MRC personnel and informants alluded fairly casually to the history of activism in area. However, prior to the commencement of the third iteration, the exact nature of the MRC's previous involvement was never clearly outlined. Although the president referred to residents as having been involved in environmental conflict in the past, the direct role of the MRC was not mentioned. In this sense, it might be suggested that because of the absence of a deeper historical grounding, initial training sessions may have lacked an element of ecological validity (Reppucci, 1990).

It was not until the review of the seemingly failed education model that informants external to the MRC explained that the MRC itself had been the venue for environmental activism in the past. Perhaps had a different path of snowballing (being referred to people within initial informants' networks as a sign of trust in the researcher (Berg, 1989)) been followed, then historical details might have come to light in a different sequence, thereby affording a deeper insight into the historical dimensions to the host MRC's engagement in environmental activism, and, possibly, a different initial approach to aspects of the third iteration. In any case, the fact remains that the primary sources of historical information about the host organization, members of the MRC itself, did not reveal this information.

Three factors may explain the manner in which information was divulged. Two relate to the MRC's culture and organizational empowerment. Firstly, although

the researcher was sponsored by the host MRC, he was not necessarily trusted as an 'outsider'. As a result, the long-serving president and treasurer may have been reluctant to share their deepest concerns about the organization becoming involved again in social action. It also seemed that the veteran activist who had previously collaborated with the MRC in community action was more prepared to discuss these issues once the researcher had gained some experience in working with the MRC. She later showed her support for the research by attending the June public meeting. Secondly, MRC personnel initially may have deferred to the researcher as an Anglo university-based 'expert'. Despite the well-developed networks of MRC personnel, they may still have felt that they needed an outside enabler, in this case the researcher, to locate suitable 'experts' to provide information to the local community. Alternatively, the MRC may simply have needed additional support, given the high level of commitment these volunteers gave to a wide range of time-consuming community projects. Yet the incident involving the Maori organizer and Public Officer suggests that the latter may not have been sufficiently organized, confident or proactive to document or contact the experts he had already met at industry community consultation meetings.

A third level of complexity in the accumulation of information is the nature of the AR method itself. In the hectic activity surrounding preparation for the third iteration, the researcher was still actively engaged in the second iteration at Port Phillip. Although some of the potential contacts and historical leads were simply not offered by informants, the significance of some of those that were was not recognized at the time.

Interestingly, however, the eventual development of the educational intervention did draw on these historical insights. In addition, social action was triggered by current events. The planning and hosting of the public meeting also involved the direct collaboration of MRC personnel; reflected local residents' existing levels of psychological and community empowerment in relation to environmental issues; involved the MRC in a way that complemented its history of involvement in the area; and resulted in many 'small wins' for both individual residents and the MRC as a whole. Furthermore, this revised plan resulted in migrant residents having more of an input to Council (via the MRC), an outcome originally desired by Council's environmental officer. A traditional, linear intervention may not have capitalized on the insights gained during this iteration.

Organizational Issues

The initial conception of the third iteration was that the MRC would provide the location and setting from which to recruit potential leaders from both within and outside the organization. Even though the MRC started off as a site and a sponsor, it was not seen necessarily as the primary target for recruiting participants. To some extent, the organizational dynamics of the MRC took over – the most active participants were also active members of organization.

Secondly, as mentioned above, community leaders' reluctance to get involved politically could to some extent have reflected the organization's history of attempting to foster and sustain community activism. Although key members of the organization may have come to see their past activities as a some sort of failure, this perception may not have been shared by the general community.

Thirdly, the MRC was characterized by an extremely high level of activity. That the annual general meeting attracted between four and five hundred residents shows the extent to which the MRC was regarded and used by local residents. The MRC relied heavily on local community volunteering and participation for administration. Communication strategies had to be developed to ensure that written correspondence would reach the desired recipients. The researcher's EE program had to fit in with a huge range of activities; in which the president and treasurer were already heavily involved. That they were prepared to engage in the EE program in addition to these ongoing activities perhaps reflects the perceived importance of environmental action, despite concerns over the organization's history of stalemate and the risks involved in 'getting political'.

Role of Media in Influencing Participation

Mention needs to be made of the way in which community groups engage in a Faustian pact with the media in order to publicize their event or issue (Rubin & Rubin, 1992; Wade, 1991). Although the researcher was successful in gaining media publicity for the EE program and for the MRC, it transpired that none of the initial participants had responded to local newspaper stories. The singular emphasis on migrants given by the local press was unexpected and may have discouraged Anglo-Australian residents from participating. For example, as an Anglo resident of Williamstown, the researcher's supervisor, reported that he did not feel that the print media coverage had been directed at him.

Galvanizing Role of Current Events in Triggering Activism

The role of the toxic waste dump proposal in influencing community action must not be underestimated. This event appeared to act as the catalyst that angered

the local community and MRC personnel sufficiently to stimulate a commitment to a more politicized social action. Again, the perception of an unwanted local event, forced by powerful interests from outside the community, shows the relative power of these events in triggering reactive, rather than proactive empowerment efforts (Rich et al., 1995). In addition, while historical events are considered a threat to the internal validity of research conducted within the traditional scientific model (Cook & Campbell, 1979), the findings indicate that they can also serve as a catalyst to ecological validity (Reppucci, 1990).

The decision to engage in social action following the toxic waste decision may also reflect a sense of solidarity shared by residents in the industrial western suburbs. Perkins et al. (1996) argued that the most immediate ecological correlates of grassroots participation comprised "residents' individual and collective community-focused cognitions and behaviours" (p. 90). They argued that collective problem solving would be influenced by the level of 'community social cohesion', given that it encourages social interaction, information sharing and a sense of solidarity amongst residents. Although by no means a directly proximal issue, it might be surmised that MRC personnel empathized with the residents most affected by the decision, having experienced similar qualms about the effect of industrial pollution on their own property values, safety and health (Cooper & Wade, 1986; Perkins et al., 1996; Rich et al., 1995).

CHAPTER 9

OVERALL RESULTS AND DISCUSSION

Having documented the research process and discussed the findings in each iteration, this chapter collates, compares and contrasts these findings, in order to identify points of similarity and points of departure. Empowering processes and outcomes at each level of analysis will be integrated and examined. In order to ground interpretation of these empowerment phenomena, analysis will commence with a comparison of salient historical, geographic, environmental, and socioeconomic characteristics of each site.

Comparison of Research Sites

Inspection of Table 7 reveals the extent of the similarities and differences between the research sites. In their environmental advocacy efforts, Port Phillip residents were able at least to draw on residents' socioeconomic and other demographic diversity, and the high cultural visibility of their region. They were able to involve residents with high levels of education and political connections, and draw on an ingrained historical culture of democratic participation and community activism. However, residential mobility could also affect continuity of participation in grassroots activity: three of the 16 Port Phillip residents who had committed at least to the initial interview stage of the project moved out of the area. Several environmental and other community action groups existed in the area, providing further encouragement and incentive for residents to develop new grassroots groups. Whilst important to their individual and collective psychological well-being, the

Table 7 Comparison of the Port Phillip and Altona North Sites

Port Phillip	Altona North
District established in 19th century. Port Phillip, and St Kilda in particular, feature some of Melbourne's, and Australia's, best-known recreational and tourist destinations, and cultural icons.	District established around petrochemical industry since 1950s. Perhaps not well-known, or even liked, by those living outside the district – especially residents of the more affluent districts.
Lack of overt, pressing 'environmental' issues. Concerns mainly involve development threats to urban amenity and heritage; also litter, traffic, bay foreshore, air quality.	Several pressing, ongoing environmental issues: dust, chemical powder, noise, smells. Many issues are 'sleepers', such as potential industrial disaster; contaminated land & water.
Training site in St Kilda several kilometres from the industrial zone on the northern boundary of Port Phillip.	Melbourne's western district has historically been used as sites for heavy industry and toxic waste, as confirmed by Werribee toxic waste site dispute.
Historical mix of socioeconomic backgrounds. Wide range of ages. More transient population than Altona North. District has recently seen influx of affluent young professionals; rising property prices; many long-term residents priced out of area.	Working-class suburb. Male residents traditionally employed in local industries; females more likely to have been home-makers. Older residents' upwardly mobile children have moved out of district. High youth unemployment (Hill, 1991).
Most residents' economic survival not dependent on local employment opportunities.	Residents' economic survival dependent on local employment in industry. Current economic climate not conducive to challenging main industries.
District highly culturally and ethnically diverse, yet with significant proportion of Anglo-Celtic, Australian born, English-speaking.	High proportion of migrant residents from non-English speaking backgrounds.
Greater awareness of rights.	Migrants have learned to be 'grateful' and to keep quiet. Some have come from repressive regimes.
Over 600 people attended six neighbourhood forums held by Council during July and August 1998. Over 2000 registered their interest. The mayor argued the forums had been "the largest exercise in qualitative research and consultation in this country" (City of Port Phillip, 1998, p. 1)	Over 400 people attended MRC 1998 Annual General Meeting in February. Indicates that migrant residents place high value on role and performance of MRC. Also suggests that residents are prepared to participate in community events that mean something to them.
Several environmental advocacy groups, many dealing with development threats to the amenity or heritage value of specific sites.	History of periodic activism on local environmental issues. Last Altona group folded in 1992 through fatigue, but saw establishment of industry community liaison committees. Some people may have withdrawn from the debate on environmental issues because they cannot face the reality of living on contaminated ground.
Local council pro-conservation. Yet all Victorian council planning decisions are frequently overridden by state government; demolition permits can be issued outside Council boundaries.	Local council dependent on industry. Political and legislative obstruction to grassroots action in Altona – industrial zones exempt from normal planning codes.
Long-term residents (Society members) participated most actively in EE program.	Long-term residents; older members of MRC participated most actively in EE program.

environmental issues faced by most residents were more to do with general amenity than with risks to health or safety.

In contrast to Port Phillip, North Altona has existed as a residential district for only a few decades. The petrochemical industry existed prior to the suburb and was the economic reason for many people moving into the area. In addition to an economic disincentive to speak out about environmental problems, many migrants were afraid of speaking out, partly due to the language barriers they faced, as well as their personal histories of oppression. To compound these impediments to participation, many of the migrants' English-speaking, culturally-acclimatized children with economic means, and some sense of their own agency, had moved out of the area, leaving something of a vacuum in terms of local residents with sufficient confidence to stimulate social change. The environmental issues faced by residents were ever-present and pernicious, such as the threat of industrial catastrophe, and ongoing risks to health derived from local industrial pollutants. A major disincentive to community environmental action may have been the intractable scope of environmental issues.

In addition to the obvious differences, there were two similarities between the research experiences at each site. Firstly, it was primarily older, long-term residents at both sites that precipitated community action. This supports Perkins et al.'s (1996) identification of length of residence as a key demographic characteristic of the distal social environment serving as a predictor of community participation in grassroots activity. Secondly, both were affected by the removal of local discretionary powers over development decision-making. The present State Government has engaged in a concerted effort to facilitate high-rise residential development in Port Phillip,

including St Kilda, against the wishes of residents and Council (e.g., Esplanade Alliance, 1998; Munro, 1999). A previous government sanctioned special industrial development zones in Altona. This points to the impact of the broader political and economic climate on local empowerment efforts.

Comparison of Empowerment Phenomena Across Iterations

The diversity of psychologically empowering processes and outcomes involved at each iteration is displayed in Table 8. The first two iterations, in Port Phillip, resulted in participants providing numerous, detailed self-reports of psychologically empowered outcomes, according to Zimmerman's (1995) intrapersonal, interactional, and behavioural components. Participants in both iterations reported intrapersonal outcomes, such as enhanced self-understanding and personal agency. There was less direct reported evidence on the interactional dimension. However, the range of empowering processes enacted by participants during the second iteration, and the resulting psychologically empowered outcomes at the behavioural level, suggests that interactional components had been integrated throughout their involvement.

In contrast to the Port Phillip iterations, evidence of intrapersonal and interactional components of psychological empowerment at the second site is more diffuse. However, the evidence of residents taking action to call the MRC, following agency members' strategic efforts to encourage residents to speak out safely about local environmental disturbances, would indicate that intrapersonal and interactional components of psychological empowerment have acted in concert to facilitate individual expressions of local advocacy. The limited evidence of intrapersonal

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Table 8 Summary of Psychological (Individual) Empowerment Processes and Outcomes At Each Iteration.

	Empowering Processes	Empowered Outcomes
First Iteration	• Participant who took part in order to gain confidence in public speaking presented session on planning.	Intrapersonal component: • Enhanced self-understanding of participants. • Participants reported enhanced leadership, group and communication skills. • "The group has given me direction" Interactional component: • Appreciation of power of discussion method in fostering critical consciousness. Behavioural component: • A participant joined first environmental group. • One participant used her skills to improve her leadership of local group. • "I perhaps have become more assertive in other areas of my life". • One participant from first iteration took part in part of second iteration and presented session.
Second Iteration	• Historical Society secretary developed a questionnaire to identify members' skills and interests and sent it to members. • Active participation of individual historical society members in promoting public meeting. • Newly-appointed historical society publicity officers developed press releases and obtained interviews with local press. • One Society participant increased individual advocacy efforts. • Industrial group member made approaches to organizations and individuals from industry. • Industrial group members approached friends and other students to join project.	Intrapersonal component: • Enhanced perception of participants' individual agency: – "I actually believe I can achieve something ... I gained the confidence to participate in, and even initiate actions that I considered totally beyond my sphere of experience, and utterly out of character with my natural inclination.. .– Secretary. Interactional component: Improved awareness about ways of: • consulting membership; • organizing, publicizing, conducting and evaluating public meeting; Behavioural component: • More assertive leadership of President. • Industrial group developed database of organizations involved in waste minimization.
Third Iteration	• MRC treasurer distributed 2000 fliers to promote June 1998 public meeting.	Intrapersonal component: • Participant with limited English gained insight from attending one meeting on AR. Interactional component: • Critical reflection amongst MRC members on toxic waste issues • Maori participant reflected on the socio-cultural barriers to Pacific Island migrants becoming involved in environmental action Behavioural component: • One participant used training material to lead her own group through evaluation and planning, and expressed strong interest in taking part in future research activities. • Prior to June 1998 public meeting, MRC received about 25 phone calls from people detailing environmental problems. • Following public meeting, 10-15 people called MRC regularly to follow up on the initial environmental complaints they made.

and interactional components the overall difficulty in gaining intimate access to most

Altona participants' reflections about their participation in the program.

The range of organizational empowerment phenomena documented during

each iteration is summarized in Table 9. From inspection of the empowering

organizational processes and empowered outcomes evident during each iteration, it

can be seen that engagement in the EE program resulted in organizational

development for each group of participants: the development of an embryonic group

identity and function in the first iteration, and consolidation and role expansion for

the Historical Society and the MRC. Activities in which participants engaged during

the first iteration served to foster the early stages of organizational development, in

Table 9 Summary of Organizational Empowerment Processes and Outcomes At
Each Iteration.

	Empowering Processes	Empowered Outcomes
First Iteration	• Participants collaboratively investigated local grassroots groups in their district • Presentations by all participants at information session to promote second iteration.	• Sense of group cohesion, belonging and collective efficacy at completion of training. • Participants stated that they had helped to generate knowledge.
Second Iteration	• Historical Society decision to hold public meeting. • Active collective participation of historical society members in organizing and publicizing public meeting. • Participants organized and conducted successful public meeting with 45 people in attendance.	• Promotional article published in local press. • Two Councillors spoke at public meeting. • Enhanced community profile of Society. • Improved quality of participation at Society meetings. • Enhanced organizational effectiveness • Increased Society membership. • Younger members at Society meetings. • Improved links between Society and other organizations, especially Council. • Neighbouring historical society joined Society.
Third Iteration	• Active involvement of MRC in publicizing EE program. • Public meeting held June 1998 to encourage residents to discuss their environmental concerns and learn ways of making complaints. Ten residents attend. Speaker from toxic waste action group. Meeting also attended by environmental officer from chemical Complex.	• Publicity in local Council newsletter through MRC – resulted in some recruitment. • Commitment by MRC President and Secretary and representatives from Greek and Anglo-Indian communities to proceed with advocacy-oriented public meeting in late June 1998. Followed government approval for toxic dump. • Enhanced community profile of MRC.

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the form of an emerging sense of group cohesion and identity, and collective efficacy. During the second iteration, Historical Society members' decision to hold a public meeting resulted in a wide range of activities enacted by members working individually and collectively. Their actions resulted in their organizations' improved organizational exposure, effectiveness and empowerment, which previously had been a typically struggling volunteer organization with limited community presence. In contrast, the third iteration involved a dynamic, well-funded and well-supported community organization, capitalizing on the EE program, and the political decision over the siting of toxic waste, to conduct a major community development activity in the form of the public meeting. As in the case of the Historical Society, this public meeting resulted in an improved public profile, and a strengthened organizational links to local community stakeholders, such as the industrial complex.

Inspection of the community empowerment processes and outcomes summarized in Table 10 reveals the range and diversity of community empowerment phenomena, and the manner in which they may express the radiating impact of empowering events occurring at other levels of analysis. During the first iteration, one participant used her new skills and awareness directly in the group which she convened, thereby enhancing the organizational effectiveness of a peripheral group. This phenomenon also occurred in the third iteration. Secondly, participants in the first and second iterations went on to join existing environmental groups, with the potential to share their newfound knowledge and skills with members of these organizations. In a more diffuse effect, participants from the first iteration created and shared local knowledge with other residents, providing them with the opportunity to act on this information, and join any of the groups participants

Table 10 Summary of Community Empowerment Processes and Outcomes At Each Iteration.

	Empowering Processes	Empowered Outcomes
First Iteration	• Convenor of local group applied her enhanced leadership skills to improve her group's performance.	• Participants' presentation of information at the Information Evening for the second iteration, provided a community education function and gave potential participants useful information to guide their own empowerment efforts. • One participant joined local group
Second Iteration	• Active networking between historical society and local businesses, Council and other organizations when publicizing public meeting. • Resident who attended November meeting (and member of historical society) contacted Alliance for support on planning application on adjacent property. • New advocacy group had stall at local festival. • Links established between advocacy group and local grassroots groups.	• New community advocacy group established; recruitment of 8-10 younger people. Skills included journalism, urban history and town planning; many links to key agencies, such as major newspaper. • One founding member became actively involved in single-issue urban heritage advocacy organization, the Esplanade Alliance.
Third Iteration	• Involvement of Council and media in promoting EE program and public meeting • Participation at public meeting of ten residents; guest speaker from toxic waste action group; veteran community activist; and environmental officer from the Complex. • Maori participant used her training to improve her groups's performance	• As a result of June 1998 public meeting, a neighbouring environmental group asked MRC to help locate Lebanese and Greek speaking interpreters, to aid group's advocacy efforts. • Increased apparent concern for NESB residents by major power holder (chemical Complex). The Complex interviewed local residents to explore their perceptions. One refinery asked MRC to help locate interviewees from four nationalities living nearby. Interviewees paid.

investigated, in their own time. In perhaps the most tangible example of an empowered outcome at the community level of analysis, the activities of Historical Society members resulted in the creation of a community advocacy organization. In all iterations, one can observe the radiating effect between the loci of the initiating group or organization, and surrounding residents, organizations and institutions.

The Empowering Effects of Action Research

Central to the empowerment phenomena observed and documented in this research – indeed, the trajectory of the empowerment process itself – was the AR methodology employed. An empowerment analysis was conducted on the extent to

which the research process itself fostered empowerment. A number of empowering aspects to the methodology are summarized in Table 11. The table also documents ancillary empowered outcomes resulting from the action research process.

As in all empowering processes, one can observe the instrumental role played by the participatory nature of AR. Inspection of Table 11 illustrates the active role that participants were encouraged to take – and took – in contributing to their education, creating educational opportunities for others, critiquing the intervention, and identifying ways of improving the EE program. Given that the research aimed for people to learn how to participate meaningfully, communicate freely, and act assertively, it can be seen that by adhering to an empowering research process, the research taught by example and by involvement. In addition, it was by virtue of this participatory research approach that ecologically valid educational approaches were identified for each iteration.

Reflections on Empowerment Theory

The present research has demonstrated the value of adopting an overarching empowerment framework, from which to observe and document empowerment processes and outcomes at and between the micro and macro levels of analysis, and their interplay (Berg, 1989; Dokecki, 1992; Perkins, 1995; Zimmerman, 1990). As Fawcett et al. (1995) argued: "Empowerment models and frameworks have heuristic value: they suggest promising enabling activities and measures of the process, intermediate outcome, and ultimate outcome or impact of empowerment efforts" (p. 691). The research has also supported the notion of empowerment as a labour-intensive, long-term process achieved through many actions (Kieffer, 1984).

Table 11 Empowering Aspects of Action Research Methodology

	Empowering process	Empowered outcomes
General	• Community consultations were open and invited collaboration. • Participants were offered free training, an opportunity to learn new skills and meet people, and to participate freely in a process aimed at generating knowledge. • Participants identified priority training areas. • Researcher invited participant collaboration in organization and delivery of EE program. • The research process was open and vulnerable to critique by participants and commentators. • Participants took active role in process and outcome evaluations. • Participants identified changes to make EE model more relevant for their context. • Participants commented on draft written material prepared for publication	• Trustful, open, collaborative relationships were developed with participating organizations. • All iterations resulted in collaboration between researcher and participants. • Approach resulted in a range of empowered outcomes across iterations.
First Iteration	• Sponsorship of research by local church. • Development of education materials through formative and process evaluation. • For two participants, the EE program was their first involvement in organized education since high school. 'Reading the summary notes sent out after each meeting validated my life experience and my practical knowledge'. • Feedback from non-participants as to reasons for not engaging in project.	• Creation of written resource of local groups. • Participants' presentation of information gathered about local environmental groups, at the Information Evening for the second iteration, provided potential participants with important information to guide their own empowerment efforts. • Development of revised and additional material on setting up groups. • Participants in first iteration felt that they had helped to generate knowledge.
Second Iteration	• Involvement of local Council in training session. • Researcher shared with participants material he learned about working with media. • Engaged historical society members in strategic planning forum. • In February 1999, researcher presented discussion to Historical Society members on urban environmental education, based on Butterworth & Fisher (in print).	• Additional material created for guide to setting up groups. • Researcher made presentation of findings to Society, and became member. • Identification of need to develop Urban EE focussing on participation in urban planning. • Council invited researcher to participate in planning forum to establish Eco Centre. • Historical Society approached researcher in April 1999 to discuss proposal to implement urban EE through auspices of Council.
Third Iteration	• Collaboration between researcher, agency, Council, community services, migrant agencies. • Collaborative development of education materials suited to second site.	• MRC Coordinator felt that to have engaged 12-16 migrants for 90 minutes on two occasions, as a 'guest' presenter, was a very positive outcome. • The MRC committee eventually took some degree of control over the education process. • Development of guide to setting up groups suited to second site. • Potential established for future collaboration between university and MRC.

The empowerment summary tables have been used to documented the wide range of processes and outcomes, and their significance to the individual people,

organizations and settings involved. Particular incidents which perhaps bore no great significance to the macro-level empowered outcomes of each iteration, nevertheless could have been extremely significant to the individual participants concerned. For example, in the first iteration, one participant stated that, 'Reading the summary notes sent out after each meeting validated my life experience and my practical knowledge'. In Altona, one participant with limited English actively participated in translating the key stages of the action research spiral into terms that he understood. He later said that he was "very happy" at having accomplished this. The coordinator of the MRC suggested that even having attracted older migrants to the meetings in the first place needed to be viewed as a sign of success. Many people gained insights that they may not have used in the context of the research, but might do in other contexts. Indeed, perhaps the success of the Altona public meeting in attracting residents to report local environmental disturbances could be due in part to word of mouth from migrant participants who had attended the initial training sessions. In addition, reporting environmental complaints to the MRC presented residents with an achievable task; one they knew would be followed up by trusted MRC personnel. In this sense, the public meeting encouraged residents to engage in immediately empowering activity.

The second iteration provided perhaps the best example of the complex interrelationship and interaction between empowering processes and empowered outcomes at the psychological, organizational, and community levels of analysis. Individual participants' efforts to plan and conduct the public meeting and help establish the advocacy group resulted in increased levels of psychological empowerment, as witnessed by changes to their general self-concept, and their

enhanced performance in their organizational roles. Their collective efforts also resulted in their organization's improved functioning and climate, and enhanced strategic activity in the wider community. On numerous occasions, an interaction occurred between psychological, organizational, and community levels of empowerment, showing that psychologically empowered outcomes can impact directly at the community level – as evidenced by participants at both sites who used training to improve their own existing groups. Many participants' experiences during the research had the potential to be empowering in other contexts; the research thus may prove to have an empowering 'ripple effect' over time and across settings (O'Neill, 1989).

The second and third iterations both featured the tentative development of collaborative partnerships between stakeholders throughout the social system, thus indicating formative elements of community empowerment (Fawcett et al., 1995). For example, the Port Phillip Heritage Alliance developed contacts with other grassroots groups in the area. Indeed, many of the steering committee members were already members of other groups defending heritage aspects of local precincts. It is interesting to note that, although the Alliance folded, other local groups involving Alliance members reported that they had gained strength from the stimulus provided by the formation of Alliance. For example, the Esplanade Alliance and the St Kilda's Residents Against the Development of the Station (Esplanade Alliance, 1998; McGeary, 1998). Again, the community-level impact of actions of individual participants shows the confluence of effects between psychological, organizational, and community empowerment (Maton & Salem, 1995). In the case of the third iteration, the increased organizational empowerment of the MRC and its extended

community networks resulted in an enhanced community awareness of migrants' concerns about industrial pollution, and the development of links between individual migrant residents, local environmental organizations, and local industry.

Reflections on Kieffer's (1984) Empowerment Model

The third iteration provided perhaps the strongest evidence for Kieffer's (1984) four-stage empowerment process in grassroots groups. For example, the 'mobilizing episode' that triggered a new 'era of entry' for this community, was the government's decision to proceed with a toxic waste dump at Werribee. During several years following the last wave community action from 1989 to 1993, the MRC had attempted to consolidate and engage constructively with industry. However, the toxic waste decision evoked fresh outrage amongst residents throughout the western suburbs, and encouraged MRC committee members to share their feelings of anger and frustration, and take risks to stimulate community action. Building on the critical awareness and political acumen they developed during recent years, MRC personnel also identified ways to encourage community action whilst being seen to remain autonomous, thus preserving the relationships they had developed with industry. By the completion of the third iteration at this site, it is possible that participants had embarked on Kieffer's second stage of empowerment – the 'era of advancement'. People throughout Altona North and beyond were using the organizational facilities and public profile of the MRC to develop or extend relationships with their peers. In fostering collaborative AR, the researcher had acted as a supportive outside mentor. In organizing the public meeting, the MRC may then have established the basis for an ongoing relationship between the MRC committee and the convenor of the hazardous materials action group, which would extend the MRC's efforts to

encourage residents to make environmental complaints. Continued enhancements to the MRC's public profile, and committee members' success in encouraging community advocacy, could encourage residents to enter an 'era of incorporation', involving consolidation of their sense of self, efficacy, and community. It is during this stage that residents would need to find additional ways to confront the entrenched nature of the structural barriers to empowerment that come from living in the shadow of a sprawling multinational petrochemical complex. With time, residents might eventually integrate this sociopolitical awareness into their everyday lives, thus progressing to an 'era of commitment'.

Given the extent of the powerful interests involved in maintaining the petrochemical complex, it is uncertain as to whether this final stage of empowerment could ever be fully realized. However, two notable events could bolster residents' efforts to achieve community environmental empowerment. Firstly, in November 1998, the Werribee community achieved an unprecedented victory in preventing the construction of the toxic waste dump in their suburb, resulting in a surge of public support for the community organizers and the community as a whole (Strong, 1998c). Secondly, in January 1999, the MRC treasurer was named Hobsons Bay Citizen of the Year, in recognition of his voluntary work with migrants and his participation in the industrial community consultation process ('Australia Day accolades for top citizen', 1999; Laging, 1999). At the award ceremony, the Mayor stated:

> You have assumed responsibility for informing our migrant residents about environmental issues of significance to them. In doing so, you have earned the confidence and respect of these residents, who feel comfortable in voicing

their concerns to you and trusting you to represent their views at an official level. Your willingness to fulfil this role, and, furthermore, your ability to do it well, are a credit to you (Hobsons Bay City Council, 1999, p. 1).

The Empowering Role of Proximal Stimuli and Historical Events

A prerequisite for action, as supported by the current research, is the presence of an immediate stimulus. The research findings support Perkins et al.'s (1996) ecological framework for participation in grassroots community organizations, in that the people most likely to engage in community participation were those concerned about an immediate environmental issue. Proximal stimuli provided the links by which people could make large issues more local and tangible, and more connected to a small win. Whilst it was the toxic waste decision that provided the impetus for community participation in Altona, the second iteration also showed the providential role played by historical events in stimulating community action. It was shortly after the historical society secretary registered her interest, in February 1997, in engaging in leadership training on urban heritage, that widespread concern and anger was felt throughout Melbourne over the threat to urban amenity and heritage architecture (Sutton, 1997b). Interestingly, no Save Our Suburbs groups had been established in the immediate vicinity of the initial research site. During the second iteration, Port Phillip participants identified that their concerns had been identified as a major public issue. This may have provided them with the same impetus that the toxic waste decision provided to Altona participants.

Research Implications for Adult Education

It is considered that the research successfully met the principles and challenges of adult education. For example, by inviting participation by people in divergent settings who were not actively participating in environmental groups, the present research met Jansen's (1995) challenge to reach an economically and culturally diverse range of people, including disenfranchised people directly affected by pollution and other environmental issues. The research also upheld and reinforced the adult education principles that adult education should be voluntary; match and build on people's life experiences and understandings, encourage critical reflection, and involve the gaining of critical insights and skills (Brookfield, 1986).

Jansen (1995) argued that adult environmental education must make people increasingly aware of "place and community" in order for them to feel motivated to act to preserve their environment. He stated that for community-based adult education to accomplish this, it must propagate/contain "community values, problems, resources and potential" (p. 94). By grounding the education process on issues of local concern, encouraging the acquisition of action research skills, and fostering grassroots collaboration amongst residents, it is considered that the research drew on, and fostered, participants' SOC, and the distal and proximal stimuli that predict participation. The EE program also responded to Jansen's call for EE to explore the application of leadership development.

The Link Between Attitudinal Research and Adult Education

The research has highlighted the complex relationship between concern and action. The research supported Ajzen's (1988) contention that for attitudes of concern to translate to action, individual members and the community as a whole

would need to believe that the opportunity existed, and that they could have an effect on the outcome. It is through these beliefs that community members might work to create other, broader opportunities to act. The present research attempted to provide a catalytic link between people's intentions and behavioural outcomes.

The educational intervention itself was designed to provide people with an opportunity to act on an environmental issue of personal importance. The community advertising campaign attempted to enhance potential participants' perception that opportunities existed for engaging in successful action. However, the efficacy of the advertising campaign depended on its success in responding to beliefs held in the community about the likelihood of its members achieving psychological or community empowerment. In Altona, there was a strong belief expressed by the sponsoring organization that older migrants were afraid of speaking out because of the perception that their efforts might not only be unsuccessful, but be punished. In Port Phillip, younger people joined the program who had such a high belief in their own efficacy that they were already heavily engaged in community projects. Those who remained with the program were also older members of an organization with referents, or power-holders, who held beliefs that tended to inhibit psychological or organizational empowerment. This made the presence of 'early adopters' important in both sites.

The research aimed to attract participants who were interested to develop leadership skills, and who might have had some experience in community participation. However, Ajzen (1988) noted that in a disempowered community, early adopters might have to act against community norms. In Altona, there appeared to exist a strong community norm amongst older migrants taking part in overt

political activity. Various MRC committee members were themselves struggling to surmount these internally- and collectively-shared beliefs. Indeed, in Freirian terms, they found themselves experiencing the tension between 'translating' the message of radical key change agents (environmentalists) into terms that could be understood and appreciated by members of the general, inactive community; acting as early adopters or peer referents; and experiencing the same fears as the general community, or mass, who had not yet developed a socio-political consciousness (Huygens, 1988). By eventually acting as early adopters, referents within the organization began a process of reshaping community norms and beliefs that had mitigated against community action. In the case of the Historical Society, the Secretary became a role model for her peers within the organization as a result of her community organizing efforts, although her early adopter role was stymied to some extent by norms held within the organization against overt advocacy.

<div align="center">Implications for Peer Education and Advocacy</div>

The research findings support the application to EE of peer leadership and peer education models, which to date have proved successful with people dealing with specific topic of close personal interest, such as HIV prevention. In all iterations, participants who gained the most from their involvement viewed their participation as providing an instrumental link between their immediate environmental goals and achieving a concrete outcome. Similarly, people have joined empowering health education projects in order to accomplish achievable, valued, short-term goals (Flowers et al., 1991; 1994; Mikhail, 1981). It might be suggested that the strong sense of migrant community identity observed amongst MRC members provided a similar environment of social role modelling and peer support to

those documented in successful peer education programs amongst subcultures with a strong sense of identity, such as HIV education for gay and bisexual men (AIDS Bureau, 1994; Parnell, 1989). In contrast to the MRC, peer relationships did not exist as strongly among Port Phillip participants. However, the enduring participation and additional recruitment of Society members may have been at least partly due to peer influence within the Society.

Each iteration involved participants with some environmental or organizing experience, who in some ways acted as role models for the other members. In the case of Altona, referents within the MRC provided the stimulus, in the form of peer leadership and organizational support, for residents to articulate their environmental concerns via the agency. By people being encouraged to contact trusted peer leaders within the agency, it could be argued that they experienced a degree of psychological empowerment.

Abrams et al. (1986) argued that in terms of community health, grassroots movements not only can promote and reinforce individual behaviour change, but also engage members in community outreach and advocacy to influence others. In this way, the authors argued that a 'critical mass', or new subculture, is achieved, in which a majority of the community's members support each other in engaging in the new lifestyle and extinguishing negative health behaviours. As a result, "maintenance of change in the face of a negative host environment is no longer a difficult issue because the social networks to which the individuals are tied are themselves becoming a healthy host environment" (p. 47). The shift in emphasis by the MRC, from supporting passive community environmental education to actively promoting community advocacy, suggests that the MRC expanded its community profile to

become a safe 'host environment' for people to express individual acts of environmental advocacy. The MRC began to foster a new community culture of speaking up on environmental disturbances. The Historical Society's efforts to host a public meeting can also be seen as an activity aimed at fostering the development of a critical mass of residents concerned about urban heritage.

The research outcomes have also demonstrated the need for peer education and leadership models to be adapted to suit their context. Although the MRC management committee were initially unwilling to set up a specific group with novice members, they later drew on their peer leadership role to encourage people to relay their environmental concerns to the MRC. Instead of setting up a new group, the MRC committee members expanded the role of MRC to include community advocacy on environmental issues. This outcome built on pre-existing community peer leadership relationships established within an existing organization, and which operated between the organization and the surrounding community.

This outcome had been unforseen by the researcher, but it can be seen that it well matched the community context. In taking a peer leadership approach, the MRC fulfilled its stated objective to encourage people from non-English speaking backgrounds to engage in community participation and social action, and for the agency to participate in the general community development of the area (Westgate Migrant Resource Centre Inc, 1998). That this outcome was embraced so keenly by the agency – and by people calling with their environmental complaints – suggests that the action research process afforded a deeper, more ecologically substantive understanding of the issues involved at this site, and an ecologically valid outcome (Reppucci, 1990; Wicker, 1989).

Role of Sense of Community

It is considered that SOC impacted positively on community participation and advocacy, in accordance with Perkins et al's (1996) ecological participation framework and the present research education model. However, it is also possible that SOC was a salient mediating variable in each setting for different reasons. Compared with Altona participants, most Port Phillip participants did not know each other prior to their involvement in the research, lived in a far more transient district, and had no identifiable role models from which to draw inspiration. However, it might also be suggested that whilst Altona participants lived in a setting with a strong relational SOC, Port Phillip residents were stimulated to act together from their shared perception that their geographical SOC was under threat (e.g., Heller, 1989; McMillan & Chavis, 1986). In turn, their participation fostered the relational component to their SOC.

These observations of SOC may at least partially explain why the more active and well-known grassroots environmental groups possess a strong minority subculture and sense of identity, thereby providing members with a SOC, identifiable role models within the organization, and a 'refuge' from the anonymity and alienation many members might feel in the urban districts in which they live (Bettencourt et al., 1996; Heller, 1989; Maton & Salem, 1995). Whilst the EE model was designed to foster a SOC, the research findings suggest that environmental educators implementing the research EE would benefit from conducting an initial assessment of the overall SOC of the settings in which they wish to conduct leadership training. In districts in which SOC is fragmented, educators may need to

conduct the training in tandem with, or subsequent to, other community development

projects in order to build on a groundswell SOC.

The Interaction Between Research Approach, Model, and Setting

Organizational Sponsorship Issues

Recruitment issues encountered during the Port Phillip iteration highlighted

the benefits of conducting EE from a local organizational base. One factor possibly

affecting relatively small rates of participation in Port Phillip, despite a concerted

publicity campaign aimed at a large number of community agencies, was the absence

of a sponsoring organization from which to base the education program. This

prevented the exposure of the EE program to potential participants drawn from a host

organization's membership and networks. In contrast, at the second site, the EE

program was supported and driven by agency members who not only had a personal

interest in encouraging community participation on environmental issues, but

belonged to an organization with a strong ideological and historical commitment to

community participation, social action, and the psychological empowerment of its

members. The organizational base provided key members with resources, and a

strong collective identity and community profile on which to draw.

Whilst the second iteration also involved working with an organization, the

Historical Society operated at a much lower level of organizational empowerment

than the MRC. For instance, it operated entirely on volunteer labour, had a minuscule

budget, lacked its own premises, and had only tentative networks to any people and

organizations of influence. In addition, it initially lacked a clear strategic plan and

clearly defined roles for its members. Compared with the MRC, there was far less in

terms of organizational resources, momentum, or cohesion to drive or sustain participation in the research program. Sponsorship of the research program was not an option. Nevertheless, as a result of their involvement, research participants were able to enhance the organization's level of empowerment, and channel some of their psychological empowerment into their organization. In addition, the Society's secretary later indicated that she was aware that she could apply her psychological empowerment to other endeavours: "I much regretted the demise of the Port Phillip Heritage Alliance, but the confidence and expertise I gained from my participation in the Environmental Education Research Program will always stand me in good stead for any future group action I may be involved in."

The research suggests that in order to promote and sustain a long-term process of community empowerment, adult EE is best implemented as an ongoing project in a local community learning facility. Yet the research also showed that even with organizational sponsorship, the processes and outcomes may be influenced significantly by the organization's culture and internal dynamics. After the difficulties encountered at the first site, it had been expected that the strong community profile, organizational resources and networks of the host agency at the second site might make it far easier to conduct publicity, recruit participants, and sustain training. However, these expectations proved to be somewhat naive. By engaging with the host organization, the action research process by necessity interacted with the organization's norms (as expressed in its modes of organization, assigned roles, and formal and informal styles of communication), its beliefs (as encompassed in its mission statement and broad aims), and its myths (as conveyed by its culture, its climate, and the stories told by its members about its history and

identity) (Dalmau & Dick, 1985). The research was also affected by cross-cultural issues in communication, and the possibility that some of the migrant committee members tended to defer to the Anglo university researcher. Certainly, concerns held by key participants about the burden of history carried by the agency were fully conveyed – and appreciated – only after several months of contact, by which time the training had reached stalemate.

MRC committee members also had expectations about the research. Perhaps because media publicity had focused on migrants, and the people who attended initial training sessions were mostly MRC members, agency stakeholders appeared to harbour expectations that the training would be aimed primarily at their members. In many ways, agency members' expectations were vindicated in that even following publicity for the subsequent public meeting that targeted the entire district, most participants were still organizational members. This raises broader contextual issues, as described by key informants: such as the difficulty of involving older migrants in night-time activity, let alone any 'political' activity; the lack of public transport in the area, especially after dark; the insidious nature of many environmental issues; the history of local environmental activism; the centrality to the local economy of the large industrial companies; and the ever-present difficulty of engaging residents' participation in a 'message dense' environment (Pratkanis & Turner, 1996). All these organizational and environmental influences impacted on the EE program.

Deeper Issue of Sponsorship and Funding of EE Programs

The research findings point to the need for EE programs to be evaluated for their organizational interaction upon implementation. Gruber and Trickett (1987) argued that all empowerment efforts invariably will involve, at some stage, a 'grant'

of power by a favoured group (such as professional organizers fostering an adult EE program within their agency, or funding bodies) to other groups or individuals (such as community members). However, full empowerment ultimately must involve a relinquishing of power by the favoured group as the minority group gains momentum. Unless the favoured group changes the very circumstances that have given it power in the first place, the grant of power is always partial. A limited grant of power may in fact undermine the effectiveness of the group that is seeking to empower itself. In turn, the limited effectiveness may discourage the original holders of power from working to expand their 'grant' of power. Host agency organizers who are unwilling for community groups to use the host's organizational resources to engage in social action or decision-making discretion may sabotage the empowerment efforts of the nascent group.

From the above discussion it might be concluded that any program – from adult community education to those conducted formally in schools – will be affected by the organizational culture of the host setting, the ideological agenda held by funding sources and other stakeholders, the commitment of key management, and the commitment and skills of individual educators. Agencies willing to sponsor or host peer leadership training, and/or allow grassroots environmental groups to use their space, must be willing to encourage environmental advocacy and other empowered outcomes. Furthermore, grassroots organizers seeking agency sponsorship of empowering EE not only must explore whether their desired outcomes reflect the host agency's broad mission and goals; they also need to be aware as to how the prevailing organizational culture, and other 'non-rational' organizational features

(Dalmau & Dick, 1985), might interact with their own educational efforts and ideological position.

Reflections on the Methodological Approach

As has been discussed above, the participatory, reflective nature of the AR approach sustained all aspects of participants' own empowerment-oriented learning and praxis. Moreover, the interactive dimension to the research not only embodied the relationship between the researcher and research participants, but included dynamics contributed by the host organization and the wider setting. All played a significant role in the process and outcomes of the research. Indeed, Glenwick, Heller, Linney and Pargment (1990) noted that "contextual forces shape both the phenomena of interest and the process of studying those phenomena" (p. 77). This section will examine these forces, and pay particular attention to the impact of tensions inherent in the participant-observer relationship.

Participant Observation and Action Research

Glenwick et al. (1990) described the tension in community psychology between the desire to document a setting and the desire to intervene to bring about social change and empowerment. They stated that documenting or describing a setting or phenomenon without acting may be ethically contentious; yet intervening without being adequately informed can impose social costs as well as imposing change. They noted an apparent tension between ecological and developmental approaches in community psychology, which emphasise ethnography, and behaviour-analytic and empowerment approaches in community psychology which would

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appear to emphasise intervention. They argued that this tension can produce a divide between conceptual and instrumental understandings.

Although collaboration can help to increase the researcher's responsiveness to the community (and, arguably, the community's responsiveness to itself), it can also cloud the research by causing the nature of the research itself to change over time: "...at some point you will cloud the lens through which you are looking at behavior" (Glenwick et al., 1990, p. 82). Yet, it might also be argued that collaboration allows the researcher to gain a deeper, more substantive understanding of the issue under investigation (Wicker, 1989).

D'Aunno and Price (1984b) described AR as an approach that fosters both the development of knowledge and community empowerment. AR still facilitates a detailed understanding of the community setting in which the study occurs, but also allows the researcher to exercise more control over the variables being investigated. This is particularly the case for investigating the development of programs intended to increase community understanding and empowerment in relation to a specific issue – such as EE. Indeed, as the present research demonstrated, AR appears to be a method most likely to enable the researcher to bridge the tension between ethnography and intervention (Glenwick et al., 1990). In addition, the cyclic, longitudinal nature of AR provided an opportunity to document the developmental nature of empowerment oriented interventions and the centrality of change to empowerment (Lorion, 1990).

Central to an adequate documentation of AR is the need to reflect on the relationships established with research participants and key informants, and the effect on the research process and outcome of the researcher's engagement with the host

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community. Berg (1989) noted that in entering a field setting, the researcher (in his case, the ethnographer) "must consider that their very presence in the study setting may taint anything that happens among other participants in that setting". (p. 54). One option is to try to 'melt' into the setting; yet, Berg noted that a covert approach can have ethical implications. However, in the case of action research, the researcher's role is clear, and pivotal, in terms of engaging directly with participants to facilitate their generation of grassroots knowledge, psychological, organizational and community empowerment, leading to social change (Chesler, 1991). Obviously, they set out with the explicit intention of having an impact on the lives of the research participants and on the research outcome. In a sense, their role is to account clearly for an intended Hawthorne-style effect of their presence in the research. The researcher's role is not so much to 'melt' as to document clearly their own impact on the research process and outcomes. The researcher becomes invisible to the extent that participants see and feel that the researcher is fully engaged with them in their quest for empowerment. Given that AR depends so much on the nature of relationships established between the researcher and participants, it can be seen that in AR, uniquely, the researcher becomes, to some extent, the subject and object of their own research (M. Adelman, 1998, personal communication).

Parallels Between Action Research and Community Development

As with all empowerment community interventions, the research was subject to a fate similar to many grassroots efforts or even worker-initiated community development programs. As in community development or grassroots action, the research process was similarly prone to stressors such as the tension of holding multiple roles; a task that occasionally seemed without bounds, and which crossed

personal boundaries; and the uncertainty of knowing whether sufficient participants would be committed to the community development goals. To respond to the enormity of the AR task, it was necessary to adopt the same, incremental perspective best applied to all empowerment efforts.

Just as research participants learned to apply the important psychological strategy of aiming for small wins (Weick, 1984), so was it necessary to concentrate on documenting the micro-level empowerment processes and small wins occurring in the research. This strategy also facilitated a proactive response to the reduced level of researcher control in AR, and the inherent tension this can cause when employing AR methodology within the time constraints of formal doctoral research (Meyer, 1993). It might be argued that in a more naturalistic context, this particular external pressure would be absent. In the case of a paid worker, time constraints will still exist, or be replaced or supplemented by other pressures, such as performance criteria, workload, or other organizational demands. Focussing on process also suited the need to embrace – and explore – the ambiguity of empowerment interventions in community settings. O'Neill (1989) argued that the community psychologist must often "define concepts whilst in the midst of action, balance competing values, and act on the basis of imperfect information" (p.323). This was particularly the case with the present research.

In order to balance the many demands of action research, the researcher variously took on a wide range of concomitant roles, as shown in Table 12. In many ways, this multiplicity of roles lent the AR a degree of ecological validity (Reppucci, 1990). Community organizers and workers training community members in peer leadership and group development skills, and providing ongoing support to the

leaders of subsequent groups, would most likely be adopting a similar array of roles.

Unpaid community organizers would also be attempting to balance the demands of

their community development task with other aspects of their lives, such as

supporting dependents, earning a living, and so on.

Table 12 Roles Adopted During Action Research

• Administrator (mailing lists, databases)	• Group facilitator
• Community consultant	• Interviewer
• Community liaison	• One-to-one support
• Curriculum planner	• Organizational consultant
• Data collection	• Publicist – multiple media
• Data analysis	• Recruitment officer
• Evaluator	• Teacher/Trainer

Implications for Environmental Education: The Need for An

Empowering Urban EE Which Propagates Environmental Psychology Research

Perhaps the most important research finding, gained from the second iteration

in Port Phillip, was the appreciation that residents' struggle to protect urban heritage

was, directly, an environmental issue. It became clear that residents' concerns,

expressed throughout Melbourne as part of the Save Our Suburbs movement (Sutton,

1997a; b), are the direct psychological consequences of invasive changes to their

local, built environment. In the current surge of hasty development throughout

Melbourne, residents' sense of aesthetics (Kaplan & Kaplan, 1989), preferences (e.g.,

Oostendorp & Berlyne, 1978; Rapoport, 1982), place (e.g., Altman, 1993; Hiss,

1990; Read, 1996, 1997; Relph, 1976), privacy (Altman, 1975; Wilson & Baldassare,

1996), and, ultimately, their SOC (Beach, 1995; Chavis & Wandersman, 1990;

McMillan & Chavis, 1986; Perkins et al., 1996; Plas & Lewis, 1996; Rappaport, 1981) are being attacked.

Participants could have benefited personally and politically from reflecting on the sense of meaning, place and community they derived from their relationship to their local neighbourhood, and developing a vocabulary that would have enabled them to advocate their environmental perceptions and concerns more clearly and confidently. Largely absent from the debate over the fate of development in urban environments, EE could play an important role in assisting residents to reflect and act on the importance of the physical aspects of their local neighbourhood to their personal and collective sense of safety and well-being (Baba & Austin, 1989), and, ultimately, their participation in their local community (Arias, 1996; Perkins et al., 1996). It became clear that environmental psychology has an important role to play in urban EE.

The Educative Role of Environmental Psychology

In contrast to environmental educators, environmental psychologists have not limited their concept of 'environment' to equate it with 'nature' (Weintraub, 1995), but have extended their notion to include the social and built environments – and their interrelationships to individuals and social groups. Indeed, given the quantity of environmental psychology research devoted to urban-human relations, it might be argued that EE and environmental psychology have dwelt at opposite poles of conceptions of 'environment'. Gifford (1987) noted the extent of research in environmental psychology in three realms of human experience (i) individual-level processes – such as perception, cognition, environmental appraisal, and individual relationships to environment; (ii) social processes – including personal space

requirements; territoriality; influences on and effects of crowding; and privacy and (iii) societal-level processes – encompassing the interrelationships between environmental stressors and the home, the local community and society; the social impact of environmental noise; urban design, layout of cities and the social impact of commuting; and social dilemmas involving the commons. Clearly, there are many issues covered in environmental psychology that could be incorporated into EE aimed at, or developed by, urban residents.

The research has shown that residents need to develop skills in identifying power relationships, the psychological impact of the symbols and shared history reflected in the built environment, and the importance of the psychology of place and identity that are facilitated through membership of a shared community environment. By integrating community and environmental psychology research, EE can assist residents to understand – and bridge – the perceptual and ideological gulf that often separates them from developers and politicians (e.g., Appleyard, 1980; Clunies-Ross, 1994, Sinclair & Diduck, 1995), and to assert their concerns in a technical language that developers and bureaucrats will have to acknowledge.

A rewarding and relevant urban EE could encourage residents to gain an appreciation of the diverse ways in which they interact with, and relate to, their urban environments. Secondly, by exploring the central role of praxis to grassroots organizing and advocacy, residents would come to identify the processes by which adults learn and act effectively. This would enable them to articulate their position to decision makers and bureaucrats in formal, academic terms. Ideally, this new-found assertiveness and clarity of communication will enable stakeholders increasingly to engage in a more egalitarian dialogue embodying "free, full participation in reflective

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discourse" (Mezirow, 1991, p. 7), akin to Habermas' (1984) theory of communicative action, which also describes the ideal conditions for community empowerment based on stakeholder cooperation (Rich et al., 1995). Being able to articulate clearly our relationship with and the personal meaning of our local, urban environment can be seen as an important step for us to rebuild our connection to our environment – not only our immediate urban environment, but also our natural and social environments.

CHAPTER 10

CONCLUSION

The research has demonstrated the value of environmental educators integrating the theoretical approaches and educational paradigms used in community psychology and health promotion. The adoption of a community psychology approach to EE has informed our understanding of environmental education and action by viewing environmental advocacy in its ecological context.

Perkins et al's (1996) participatory framework identified the predictive role in community participation played by distal and proximal features of the physical, economic and social environment. It has shown that the factors influencing people's decisions to engage in environmentally-related behaviour (whether individual acts of environmental 'responsibility' or participating in community action) are far more complex and wide-ranging than most EE research would have acknowledged to date (e.g., Hungerford & Volk, 1990). In Perkins et al.'s framework, distal features in the physical environment included urban planning features and defensible space. Home ownership and income were distal qualities of the economic environment, whilst length of residence and race were distal characteristics in the social environment.

Proximal features in the physical environment included incivilities such as litter and vandalism, whereas proximal features of the social environment consisted of community cognitions and community behaviours (Perkins et al., 1996). Community cognitions encompassed sense of community; community satisfaction, confidence, and attachment; communitarianism, and organizational efficacy.

According to Perkins et al., community cognitions formed antecedents to community behaviours, which included visiting and helping neighbours, discussing problems, and volunteering. Approaching civic participation as a function of these distal and proximal influences affords a more holistic understanding of environmental behaviour that must be reflected in the approach that environmental educators adopt. This approach also answers the call by critics within EE (e.g., Fein, 1993; Robottom & Hart, 1993, 1995), for EE to examine environmental issues, learning and behaviour from within a broader sociopolitical context.

The community psychology approach has also shown the importance of fully embracing the empowerment construct. Analyses of the intrapersonal, interactional and behavioural phenomena that influence a community's attainment of empowered outcomes around environmental issues (e.g., Zimmerman, 1995), can be seen to inform the educational content and processes necessary to foster environmental action by adults. Incorporating a community psychology perspective on empowerment has tapped the promise latent in Hungerford and Volk's (1990) EE model.

Lessons From Health Promotion

Encouraging residents to expound environmental issues of concern to them reflected health promotion's approach, in which community members are supported in defining and addressing local health problems in ways that enhance community empowerment. This approach identified that the struggle to protect urban heritage and amenity is a direct environmental issue, thereby resulting in enhanced insight into the range and depth of environmental problems, and the need to expand EE's

scope to include urban planning issues. As in the case of community health problems, local urban environmental issues faced by residents at both sites were identified as having their roots in the disparity of power relationships between residents and major stakeholders (including developers, industry, and politicians), and residents' currently limited opportunities to assert their concerns in a manner that can be respected.

The suggested urban EE program is not only applicable to urban heritage issues, but lends itself directly to application to issues faced by Altona residents, such as industrial pollution. Educators could extend research conducted with Altona residents on environmental stressors (Cooper & Wade, 1986), by working with residents to explore and document the impact of these stressors, not only on residents' quality of life experienced at home, but also in the local community, and in the wider society (Gifford, 1987). Residents could also be encouraged to reflect on the way they appraise and interpret the visual features of their unique industrial landscapes according to its visual coherence, complexity, legibility, and mystery (Kaplan & Kaplan, 1982a, b). In addition, they could explore the particular relationships that they develop with these landscapes, and their impact on their sense of place, sense of community, and participation (McMillan & Chavis, 1986). Indeed, residents in all locations could reflect on the symbolic function played by architecture in evoking various meanings, sentiments and emotions, in conveying the power relationship between the occupiers of the building and its onlookers and neighbours, and provoking certain actions (Cohen, 1974; Rapoport, 1982). The suggested EE program could extend the discussions that occurred during the third iteration, on the relationships residents hold with the people who own and operate

these facilities, and the sources of power and control nested within these relationships.

The research showed that incorporating environmental psychology principles, analyses of power, and communication and advocacy skills into an urban EE curriculum could enable residents to communicate more assertively and equally in formal decision-making arenas. In so doing, they would be able to advance up Arnstein's (1969) ladder of citizen participation: from a position of manipulation, placation and empty consultation, towards partnership, delegated power and possibly even citizen control. Such a level of partnership, involving shared understanding and collaboration, is essential for true community empowerment (Habermas, 1984, 1987; Rich et al., 1995).

Peer Education

Adapting the health promotion paradigm to EE has illustrated the importance, and benefits, of embracing a socially critical adult education perspective, of which peer education and advocacy are integral components. Training residents to take on peer leadership roles within their community not only contributed to community development, but also provided all participants with an opportunity to fulfil their deep-seated need for meaningful community participation (Berkowitz, 1996). It is considered that peer education components not only provided participants with an opportunity to learn from each other in accordance with fundamental adult education principles (Brookfield, 1986), but also mirrored the peer interactions enacted between residents as they engage in Perkins et al.'s (1996) community behaviours such as collective discussion of local issues and volunteering. Peer education and training was also observed as helping to foster community cognitions which Perkins

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et al. suggested formed antecedents to community behaviours. By strengthening these community cognitions and fostering community behaviours, peer education was thus seen to encourage participation in grassroots organizations, of which advocacy was an outcome.

<div align="center">Advocacy Skills Development</div>

Models of advocacy training, as used in health promotion and documented in community psychology literature (e.g, Balcazar et al., 1990), were found to be highly applicable to adult EE. The notion of advocacy added substance to Hungerford and Volk's (1990) notion of 'environmental citizenship behaviour', by grounding it in terms of sociopolitical agency (Mouffe, 1992b). The present research recognized and approached advocacy as a key component of grassroots organizing and community participation (Pilisuk et al., 1996), rather than as a discrete activity attempted by individual users of particular services as in the case of some disability literature (DiGregorio Hixson et al., 1992; Monroe, 1995).

Further research would be needed to explore the specific impact of advocacy training on individual participants' environmental actions. Yet, it is felt that whilst it is useful for all citizens to learn how to speak up for themselves and, for example, make complaints, advocacy efforts may be more productive and meaningful when people attempt it as part of their involvement in a supportive and empowering community organization. For example, the present research documented the positive impact of power analysis and advocacy skills rehearsals on the St Kilda Historical Society President's leadership performance, and on the Secretary's "...confidence to participate in, and even initiate actions that I considered totally beyond my sphere of experience, and utterly out of character with my natural inclination." So, too, did the

public meeting at Altona to encourage people to make complaints, following a power analysis by committee members, foster individual acts of advocacy under the auspices of an increasingly empowered MRC. Examples of this holistic approach in the disability field can be found in Balcazar et al. (1990) and Zirpoli et al. (1989).

Cross-Cultural Issues in Environmental Education

Also of interest to this research was the question of how well environmental peer leadership training could translate across cultures. Whilst training for grassroots group leadership on environmental issues proved to be a premature goal for the Altona residents who participated in the EE sessions, the research demonstrated the opportunity for MRC personnel to exercise their own stature as peer leaders of their community, and the high local standing of their organization, and act as a conduit for local complaints. Again, one can only speculate as to the outcome, had the research process unearthed local residents from outside the organization who were interested and ready to take on a leadership role. However, the outcome obtained was consistent with key informants' experiences with similar migrant populations, and with the historical relationship between the local community and surrounding industry. This suggests that the outcome was ecologically consistent with the setting, and that such conjecture is perhaps not particularly helpful.

At the completion of fieldwork, residents had begun to use the MRC as a conduit for local complaints; the MRC had expanded its influence to embrace environmental advocacy; and the Treasurer had won official Council recognition, as Citizen of the Year, of his peer leadership on environmental issues. It is considered that the peer education intervention played a role in these outcomes. It is possible

that these empowered outcomes will generate a precedent and impetus for further environmental education within the MRC. For instance, some of the people who gained the confidence to ring the MRC with their environmental complaints might consider taking on peer leadership roles within the MRC or in other settings. Secondly, the MRC could capitalize on the publicity and profile gained by the Treasurer's citizenship award by conducting further environmental training on site. In time, this event may prove to be the catalyst that gave other migrant residents the courage to increase their profile in their local community. It may also serve to enhance the degree of organizational confidence and efficacy expressed by MRC members when liaising with local industry.

In summary, then, it is suggested that the peer education intervention did show some evidence of translating across cultures, including geographic, demographic, and organizational. It can also be inferred that the concept of peer leadership training, used extensively to date in HIV/AIDS and in youth health issues, did translate to some extent from these subcultures into the environmental arena, and help participants become increasingly aware of "place and community" (Jansen, 1995, p. 94). However, the nature of peer education strategy it was observed that the efficacy of this style of community intervention depends on the nature of the issue, with many environmental issues somewhat 'external' to the participant when compared to health issues. Furthermore, the steep attrition experienced during the third iteration, and the emergence of a peer education strategy quite different from the intended research model, indicate that the concept of peer education must be adapted to suit the culture and dynamics of the populations with whom it is intended to be used.

As such, the setting and the population also found to impact on the outcomes. The peer education model was perhaps most immediately and visibly applicable to middle class Anglo communities. Furthermore, working with older people in both sites showed that the model is transferable to this generation; however additional support work may be required to generate the kind of dynamic observed, for example, with younger members of subcultures impacted by HIV (although, for example, HIV peer education with gay men has often tended to involve a wide range of ages (Butterworth, 1988).) Alternatively, one should expect to witness a different, perhaps more restrained, form of peer leadership, as a function of working with an older cohort. This was especially observed in Port Phillip. It might be suggested that the peer interaction observed amongst southern European migrants in Altona, despite their older age, was far more dynamic in comparison to the Anglo participants in Port Phillip. Given the centrality of peer interaction to adult education, community participation, and empowerment, the translation of peer leadership training between populations and cultures, and around various community issues, is worthy of further research.

The Impact of Organizational Sponsorship

The presence or absence of organizational sponsorship was found to impact on community environmental leadership training. The research highlighted the important role played by local, established community organizations (i.e., the MRC) in fostering critical reflection by local residents and facilitating community environmental advocacy. Secondly, the example of the Heritage Alliance demonstrated that even groups with highly educated, assertive, articulate, well-

connected members may collapse if not auspiced and sponsored by an empowering organization. Therefore, a new group must not simply have access to resources and sufficient numbers of psychologically empowered members. Founding members must also work together in an effective way and receive support, as in Kieffer's (1984) empowerment model, from mentors or others who can assist them initially to articulate their vision, translate it into practical goals, and develop a suitably workable organizational structure. In 'sponsoring' or auspicing the development of the Port Phillip Heritage Alliance, the St Kilda Historical Society was insufficiently organized or empowered at that stage, and with insufficient consensus about the nature and limits of their auspicing role, to foster the effective start-up of the Alliance. This suggests that a new group is more likely to succeed if it is sponsored by an empowered organization. However, it also suggests that had the Alliance contained just one member with sufficient energy and focus, that the group could have progressed.

The present research reinforced the importance to organizational and community empowerment of the serendipitous presence of 'early adopters' to catalyse and organize the enthusiasm of initial members of a new community initiative (Ajzen, 1988; Huygens, 1988). Recruiting and training interested community members to take on a peer leadership role obviously will be more efficacious if they can gain the skills and confidence needed to embrace an early adopter's motivational and organizational role. Yet serendipity will again play a role in determining who self-selects for peer leadership training. As demonstrated in the present research, some participants will be ready for this role and have the potential to fulfil it; others may not. However, a dynamic and supportive group process may

provide the less overtly ready peer leadership trainees with the encouragement needed to grow into such a role.

Despite the obvious importance of the serendipitous presence of potential community leaders in any peer leadership training program, the research nevertheless highlighted the importance of the EE program itself being auspiced. Had the Port Phillip iterations of the EE program been sponsored by an empowering, high-profile, local community adult education facility, then the researcher himself, acting alone as coordinator, publicist, and facilitator, would have had access to an important background source of administrative support, debriefing, and local knowledge, and an additional population of potential participants. This might have changed the entire dynamic of Port Phillip training. For instance, the researcher may have been able to locate people with a presenting environmental issue for the first iteration; he may have gained confidence in his role earlier in the fieldwork; grounding the EE program within a sponsoring organizational setting may have had a positive influence on the power dynamic within the Historical Society that inhibited Society members from actively supporting the Heritage Alliance. It may also have provided the Society with an important local referent. As demonstrated by the second site, a sponsoring organization would also have invoked other issues, namely the impact of that organization's culture and perspective on the EE program. Overall, however, it is felt that organizational sponsorship provides the educator with an important source of administrative support, consultation, local knowledge, public profile, community and media contacts, and immediate connection to local residents.

Action Research and its Connection to Grassroots Organizing

Advocacy was also seen to be an efficacious outcome when participants understood it to be a key component of both grassroots organizing and their action research efforts to gain a more holistic understanding, through praxis, of their situation. It is considered that the inclusion of action research principles into the educational curriculum assisted participants to move from environmental knowledge to action in a number of ways. Firstly, encouraging participants to view their grassroots organizing as part of a deeper effort to research the issue and collect, interpret, and act on data, validated their environmental concern as a topic worthy of research. Secondly, it enabled participants to understand the connection between information as a source of power (Manz & Gioia, 1983), and their own empowerment efforts. Thirdly, it provided participants with validation as people with the potential and skills to conduct research, thereby helping to demystify and democratize the research process.

It is considered that all grassroots organizations would do well to examine the connection between AR and the key stages of grassroots organizing, namely: conducting needs assessments; turning problems into tangible issues; developing a flexible strategy; recruiting members to engage in specific tasks; evaluating the outcome of each strategy; and directing the insights gained back into the grassroots group (Perkins et al., 1996). Although it is unclear from the present research the extent to which participants fully internalized the curricular discussion of AR concepts into their own understanding, it is considered that the connection between grassroots organizing, information, power and empowerment is a topic worthy of further exploration. Certainly, is has been shown that the embodiment of AR

principles into the overall research design provided participants with validation of the importance of their own insights and contributions, and contributed to participation and empowerment in a number of ways and levels, as discussed in Chapter Nine.

Limitations of the Research

This research was characterized by low numbers of participants, reflecting issues in recruitment, as well as transience and attrition of participants. The low participation rate prevented the collection and chronological comparison of data points using conventional quantitative methods. Indeed, there were periods when it appeared that some stages of the fieldwork might need to be abandoned. This exposed the researcher to the tensions inherent in AR, particularly when conducted towards completion of a higher research degree (Meyer, 1993). Paradoxically, as noted above, the vagaries of the AR experience also demonstrated a high level of ecological validity (Reppucci, 1990).

The research aimed to engage residents in creating and participating in an education program in much the same manner as would a community organizer or community development worker. Community development workers commonly experience low response rates to community advertising and high rates of participant attrition as they attempt to develop community initiatives and interventions that fit with their client community's needs and perspectives, and respond to the broader community context (Butterworth, 1991; Rubin & Rubin, 1992). Low initial participation rates could be partly explained by the dislocating nature of many social features of the postmodern era, as outlined in Figure 3. To attract people to this

research, the benefits of participating in the education program needed to be communicated to a population perhaps numbed by the pervasive influence of mass-media and a 'message-dense' environment (Pratkanis & Turner 1996), an increasingly fragmented urban environment (e.g., Heller, 1989; Wandersman, 1981), and the widespread realization that local problems and the circumstances affecting people's lives have their locus in remote places and interests (Pilisuk et al., 1996).

In attempting to surmount these impediments to participation, this research revealed several limitations, whose implications could inform the efforts of community development workers and future researchers in their attempts to maximize participation, minimize attrition, and collect useable data. These research limitations, in pre-program planning and administrative arrangements, recruitment strategy, media strategy, and education methods used, will be discussed below.

Recruitment Issues

According to Prestby, Wandersman, Florin, Rich, and Chavis (1990), organizational leaders are often motivated towards making a contribution to improve the community, to experience friendship, social activity and the enjoyment that can accompany community organizing, and to fulfil ego needs. Their research indicated that people who participate the most in voluntary organizations perceive higher benefits and lower costs, while those who participate the least may perceive no difference between benefits and costs. The more active participants also experienced greater personal and social benefits than did less active participants. The authors identified that group leaders could enhance participation by providing incentives and working to minimize the costs of participation – perhaps by providing child care, minimizing the time spent at meetings, and ensuring participants' safety.

The present research did attempt to emphasise these benefits in recruitment material, by promoting the civic, social and educational opportunities offered by the EE program, promising refreshments, and highlighting the accessibility of training venues. Efforts were also made to ensure that training occurred at times and in a format convenient for most participants. However, in order to encourage greater participation, future AR efforts might also need to attempt to secure the resources necessary to provide child care, and ensure that transport can be offered to those people who might be concerned about their safety after hours, or who may not have access to convenient or accessible public transport. In fact, with adequate resources and planning, future EE program coordinators could actively encourage parents to bring their children, with the assurance that personnel would be on hand to provide them with supervised recreational and educational activity. These services also would need to be communicated clearly to potential participants during the recruitment process. Whilst participants from the present research did eventually offer each other transport as they grew to know each other, the provision and promotion of this service prior to recruitment might have encouraged other people taking part.

Future research could also identify other settings from which to base the EE program, in which such costs of attending would be minimized. For example, retirement villages or high-density public housing estates could be investigated as venues for conducting the EE program. In these examples, a large population of potential participants exists, and child care may either be available, or not be required. Transportation would not be required, and after-hours safety could be ensured. Support staff might also be available to participate in the delivery of the

program, and/or combine the EE program with existing activity programs. Furthermore, such EE programs could serve to build on whatever SOC existed in these settings.

Other future research efforts could encourage greater participant numbers by perhaps working with environmental advocacy organizations to target their 'silent' or passive membership, or obtaining more widespread media support, thereby reducing the impact of attrition.

Factors Affecting Participant Attrition

Commitment issues

In addition to highlighting the benefits of participation and minimizing the costs, it is possible that requiring a nominal payment might have provided participants with a contingency to remain committed to the EE program – a behaviour change strategy used in a wide range of areas, including weight loss (e.g., Martin & Pear, 1983). However, whilst perhaps providing a largely symbolic disincentive to withdraw from the program, this strategy might also have provided not only a symbolic cost to participation, but also a real cost for people with limited means. A 'fee for service' may also have raised participant expectations about the type of educational service they would receive for their investment: this would have added a further layer of complexity to the EE program, in terms of consumer rights and service obligations. Nevertheless, future research could investigate the efficacy – as well as ethics – of this approach, in minimizing participant attrition.

The Need for Effective Media Publicity

The researcher's experience in liaising with local media highlighted the importance of any educational intervention – and for that matter, any applied

research – in having an effective strategy for dealing with the media and securing publicity for recruiting participants to one's research or education program. The failure during the first and second iterations to obtain appropriate, free publicity revealed the researcher's own limited awareness of how to present the EE program in a press release that would appeal sufficiently to news values and result in an interview and/or sympathetic story. With limited research budgets, researchers and community workers alike need to be able to secure media publicity for which they would not otherwise be able to pay. Students and practitioners of community psychology would do well to be grounded in these practical media skills, and with a suitably critical awareness of the manner in which the media operates.

Future research could make more effective use of the media, by ensuring on-going publicity for the EE program. For example, one way of ensuring the involvement of current participants, as well as increasing the possibility of recruiting others, would be to secure regular promotion on community radio, or in the local press, in which the researcher, and eventually participants, would describe their activities in the EE program, keep the community informed about developments, and identify ways in which interested listeners could get involved. Whilst this would obviously be a useful strategy for nascent environmental groups to employ as a result of their leaders' participation in the EE program, it is felt that the current research could have used this strategy effectively to ensure enhanced participation and perhaps minimize some attrition by providing participants with direct experience and tangible skills. In the case of the third iteration, it is possible that media publicity of this sort could have helped unearth residents for whom the original education

program was actually intended – that is, people with some interest and confidence in exploring the acquisition of peer leadership skills.

An additional media avenue – the Internet – is of increasing importance. Future research could investigate the possibility of establishing an interactive website, either prior to recruitment, and/or as part of the educational process, to develop a website to promote the education program and any groups that are established, stimulate discussion and information exchange, post the agenda and minutes of particular meetings, and network with community action groups in other parts of the world working on similar issues.

Limitations of the Research Design

The abandonment of the quantitative data collection component may also be indicative of the constraints of the action research design employed, and the sheer number of tasks and roles involved, as indicated in Table 12. Despite the ecological validity that these multiple roles lent the research, as discussed above, it might also be suggested that to be implemented more effectively, the present research design might need to have been structured to remove the need for overlapping iterations, thereby allowing a sole researcher sufficient time to balance all the tasks required. In this instance, the research design was affected by the time and resource constraints of the higher degree process. The researcher was also keenly aware of the expectations he had engendered by participants at the second site, and was concerned about the effect that further delaying the third iteration may have had on the host organization's commitment.

Although practitioners in applied community settings are commonly engaged in implementing several projects simultaneously, often in similarly demanding

circumstances, it might be suggested that action researchers may need to take heed of the potential for AR to result in role overload, and the way this might impact on the ability to collect data systematically. Alternatively, these multiple research tasks might need to be shared between two researchers; this would also afford a higher degree of support for the researcher, and foster enhanced praxis in the identification of enhanced data collection and problem solving strategies, than is possible when working independently. Whilst this suggestion may not be feasible for doctoral candidates working solo, it might possible for others to develop a research partnership with practitioners working in applied settings.

As discussed in Chapter Eight, the third iteration was affected by the timing of information revealed by key informants. Whilst this can be explained partly by the interactions between the researcher as participant observer in this NESB community and the host organization, the research process itself needs to be seen as contributing to this situation. It was noted that due to the intense activity at both sites at the time of transition to the second site, the researcher failed to note the historical importance of some of the early key informants. It was not until the initial trial of the EE program failed in this setting that the informants were contacted again and that a deeper understanding of the significance of earlier events was obtained. However, in retrospect, it should have been possible to obtain a clearer understanding of the history of the second site much earlier, such as during the initial community consultation and scoping phase of the research.

Limitations in the Education Process

Even in the absence of an historical understanding emerging through adequate initial community consultation, the participation of veteran activists in

education meetings at the commencement of the third iteration would have ensured that all participants (including the researcher) would have had an opportunity to discuss and learn the importance of these earlier experiences. Whilst the researcher had been concerned about the potential for activists to dominate the agenda of the education program at either site and inhibit the emergence of new leaders, it can be seen that their absence from initial education sessions denied participants and researcher alike the opportunity to obtain a firm historical grounding from which to base any future learning and action, and to decide what use if any they wished to make from these activists' experiences, suggestions and contacts. Future EE programs would be strengthened by ensuring that activists were engaged at the commencement of education programs to provide all participants with this essential historical background.

More prosaic and straightforward means for enhancing participant commitment to the program could have been built into the education process itself. For example, participants in the first and third iterations needed to feel involved immediately, in order to feel that their motivation for attending initial sessions could be turned quickly into action. It is likely that they needed to be given concrete tasks and positions of responsibility early in the education program. Future research programs could investigate the option of inviting participants to hold education meetings in their homes, once basic trust issues have been resolved, thereby providing people with a responsibility to help organize education meetings, and also serving to create a sense of group belonging amongst participants.

Attrition of participants, except for those concerned about or committed to working on a particular issue, demonstrated the need for a presenting issue on which

to meaningfully involve adults in peer education (Brookfield, 1986). It was the coincidence of historical events – namely the State Government's toxic waste dump decision – that provided participants in the third iteration with the impetus to proceed with the EE program. With the benefit of hindsight, it is clear that a number of strategies could have been employed at the commencement of training to present participants with simple, tangible local environmental issues on which to base their action learning. Especially in the case of the third iteration, this would have been useful for participants who did not know what to expect. Non-threatening issues could have been identified through background research and consultation of key informants. Migrant workers and leaders from other districts could have been invited to attend the initial education meetings at the MRC and describe any environmental activities on which their residents were working, and their achievements. Furthermore, MRC members could have been invited to gather and share information about environmental issues occurring in their countries of origin, and help to identify similar opportunities for action in their adopted neighbourhood.

Failure to identify and employ these strategies during the iterations perhaps reflects the researcher's uncertainty and unease in commencing the education program in a didactic manner. However, as has been mentioned elsewhere in this dissertation, this may have provided some participants with the initial structure they needed, and assured them that the researcher had sufficient credibility to warrant their continued participation (Reardon, 1991; Stiff, 1994; Taylor, 1995).

Other teaching strategies would have been useful, for example the use of a wider variety of teaching media, such as audio-visual material, posters and creative art. Although some consultation with migrant workers occurred to identify

appropriate teaching strategies for NESB participants, this consultation could have gone further. For example, any community educators and workers from key language groups and cultures represented in Altona could have been asked to identify any teaching styles that particularly suited that language group, and inform the researcher of any cultural taboos that might threaten their commitment to the program. Indeed, future education programs in NESB communities would benefit from securing the ongoing co-facilitation with a well-known NESB adult educator, resources permitting.

Data Collection Issues

Due to low recruitment numbers, attrition, and cross-cultural issues, the administration of the questionnaire – and even the interview during the third iteration – proved extremely complicated within the constraints of the present research, and were eventually abandoned. The most reliable forms of data collection for this research proved to be those that were the least intrusive. For example, given the delicate issues involved in obtaining meaningful interview and questionnaire data from older migrants, the third iteration provided initial support for Webb, Campbell, Schwartz, Sechrest, and Grove's (1981) call for data collection methods that "do not require the cooperation of a respondent and that do not themselves contaminate the response" (p. 2). Tape recordings of training sessions, flip-chart notes and summaries developed during training sessions, notes taken from meetings, telephone conversations, and copies of correspondence, still enabled the documentation of empowerment processes and outcomes at multiple levels. Although quantitative access to individual participants' intrapsychic constructs was lost, dogged pursuit of these data might have damaged relationships with participants, and even damaged

the action research process and eventual outcomes (Berg, 1989). Therefore, for the present research at least, the most suitable data collection methods appeared to be ethnographical.

Webb et al. (1981) offered the following critique of the administration of interviews and questionnaires:

> Interviews and questionnaires intrude as a foreign element into the social setting they would describe, they create as well as measure attitudes, they elicit atypical roles and responses, they are limited to those who are accessible and will cooperate, and the responses obtained are produced in part by dimensions of individual differences irrelevant to the topic at hand (1981, p. 1).

The authors' main objection to questionnaires and interviews was that, when used in isolation, their methodological weaknesses are not compensated, or cross-validated, by other research methods with different strengths and weaknesses. It is tempting to use their argument to provide retrospective justification for the abandonment of quantitative data collection. However, it must be acknowledged that the present study was similarly limited by the absence of quantitative measures to triangulate the participant observer findings – which in isolation could also be argued to have 'contaminated' the response – and would need to be addressed in future research.

Future research would need to better facilitate the collection of quantitative data from NESB participants. For example, with adequate resources, preparation and support, migrant community leaders could be trained to conduct interviews and

gather quantitative data, thereby reducing the cultural impact of an Anglo researcher and serving to enhance community members' research skills.

Limitations in Documenting Substantive Community-level Empowered Outcomes

Despite the absence of solid 'data points' from which to observe the impact of the educational intervention on participants' personal and collective environmental behaviour, as in traditional approaches, the research nevertheless was able to document 'small wins' (Weick, 1984) resulting from the educational intervention, by monitoring the sequence of empowering processes and empowered outcomes. Weick noted that in order to capitalize on small wins, one must be able to identify and collate the small changes that may be present but otherwise unrecognized. In this respect, the method adopted to track empowerment suited the very nature of empowerment – as a labour-intensive, long-term process achieved through many actions (Kieffer, 1984). This approach also provided participants with an opportunity to reflect on, understand, and build on, the AR link between their efforts and resulting outcomes. Finally, this process enabled participants to identify the value of their participation, irrespective of the outcomes. For example, the St Kilda Historical Society Secretary reported that although she would have preferred that the Port Phillip Heritage Alliance continue, she realized that her involvement would "always stand me in good stead for any future group action I may become involved in."

The process of documenting empowering processes and empowered outcomes was found to be a useful methodology that community development workers could employ, given that they are often compelled to provide 'performance indicators' to justify the ongoing funding of their projects. Process and outcome

documentation can provide community development workers with valuable, qualitative, contextual data that provide a deeper insight into the potentially empowering ripple effect of a community intervention, regardless of whether it meets its formally defined empowerment outcome 'targets' (O'Neill, 1989). Given that these outcomes are usually long-term, and often beyond the scope of frequently short-term funded projects, the research has showed the importance of documenting intervening, process outcomes.

Notwithstanding the importance of documenting small wins, and the success of the present research in documenting them, it needs to be acknowledged that it was beyond the time constraints of the research to document any long-term, substantive, community-level empowered outcomes, such as improved collective lives, positive changes to the physical environment, or improvements to services or legislation (Rich et al., 1995; Zimmerman, 1995). The decision to halt the Werribee Toxic Waste facility provided a clear example of a community-level empowered outcome that involved the concerted efforts of hundreds, if not thousands of Werribee residents, over a period of more than two years (Strong, 1998a). Community organizing is, then, a long-term process beyond the scope of a time- and resource-limited thesis.

Although it was anticipated and intended that the research might have been able to document any community-level outcomes resulting from participants' actions (as shown in Figure 15 in Chapter Five), in hindsight it needs to be acknowledged that it would have been difficult, and perhaps impossible, to measure all of these outcomes effectively by relying solely on documents such as press reports, official correspondence and meeting minutes, as was originally intended. Other means may

well have been required to triangulate outcomes documented in this fashion. For example, through the use of community narrative (Rappaport, 1995), citizens and stakeholders could be encouraged to share their perceptions on significant empowering events, and identify the actors and sequence of actions that, in their view, brought about substantive community empowerment. In this way, a more detailed composite could be developed of the multi-level nature of the empowerment process, and the key historical markers involved.

Threats to external validity

Whilst historical events grounded the research findings in an ecologically valid context, they may have limited their external validity, or the extent to which the findings could be applied to other settings, people and times (Cook & Campbell, 1979). However, much community development work and grassroots organizing involves capitalizing on historical events as they occur, in order to stimulate the imagination and involvement of otherwise passive citizens (Sanders, 1991). The AR approach also reflected the approach taken by community development workers in their attempts to develop new strategies through 'trial and error'. In these respects, it is considered that community development workers and community organizers would respond to the methodological issues reported in this research and would identify the processes and outcomes obtained – and the methods used to document them – as germane to their work setting and professional experience. Therefore, despite its low sample size and the absence of quantifiable data, the EE model developed during the present research lends itself to replication in a range of community settings.

Future Directions

In a theoretical paper resulting from insights gained during the present research, Butterworth and Fisher (in print) identified the opportunity to integrate environmental psychology and community psychology principles into an urban adult EE program, incorporating peer education and community leadership development. Future research efforts could explore the impact of this program, when sponsored by a high-profile, empowering organization.

At the time of writing, discussions were being held with the City of Port Phillip to examine the possibility of Council auspicing a formative evaluation of an urban EE program, in partnership with Victoria University. If secured, this level of sponsorship might encourage the sustained participation of sufficient numbers of participants to facilitate the use of the pilot questionnaire, and to triangulate quantitative and qualitative data. Ideally, the program would be sponsored long enough to be able to monitor and document the long-term empowerment process identified by Kieffer (1984).

In addition to its auspicing by Council, the EE model might also be examined for its implementation by existing environmental organizations; both mainstream, government funded education organizations, and the more radical, grassroots advocacy organizations. These additional iterations would provide an opportunity for further refinement of peer leader training topics and the education process. They would also facilitate extended exploration of the dynamic interaction between the peer education process and organizational and cultural factors.

In providing an example of the application of their conceptual EE model, which the present research deepened and expanded, Hungerford and Volk (1990)

suggested that school students could learn to identify issues, develop research questions, gather information from multiple sources, learn and employ research methods, collect and analyse data, and make recommendations from their inferences. Students could then learn various methods of citizenship action and develop plans to adopt various strategies, depending on their perceived merits and possible consequences. Finally, Hungerford and Volk argued that if students actually chose to implement their action plan, their instructor would assist them. Civic action was thus portrayed as an ancillary option, rather than an integral component of learning.

Future research could investigate the application of the present, alternative, empowerment-oriented EE model into a high school setting, especially with older students approaching voting age. The present model holds particular promise for encouraging students to understand and embrace the process of action and reflection inherent in all action research, adult education, and empowerment, by respecting their political and civic consciousness, and inspiring them to engage in leadership training around environmental issues in their own lives, of which they already feel a sense of ownership, and a desire to take action.

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APPENDIX A

LIST OF INFORMANTS APPROACHED DURING RESEARCH

- Two university-based environmental education researchers at Deakin University, Melbourne;
- An academic researcher in educational pedagogy at Melbourne University;
- An academic researcher of adult education at Melbourne University;
- Academic psychologists engaged in environmental behaviour research at Victoria University, University of Ballarat;
- University researchers with expertise in qualitative and AR methodologies at Victoria University;
- A peer education officer with the Victorian AIDS Council;
- The coordinator of a young offender peer education project established by the Department of Community Services;
- Several environmental scientists at Victoria University;
- A past senior policy analyst with the Victorian Council for Adult Education;
- Staff at the Centre for Education and Research in Environmental Strategies in Melbourne;
- Environmental officers from three local councils (Port Phillip, Hobsons Bay, and Manningham);
- Staff at Environs Australia, the peak Australian organization for council environmental officers;
- Two Councillors and Community Development Worker at the City of Port Phillip;
- Independent environmental consultants;
- Educators from several community-based environmental education and/or advocacy organizations, including St Kilda Earthcare, Gould League of Australia
- Environmental scientist with expertise in the role of community networking in fostering waste minimization (Gibson, 1993);
- NSW Environmental Protection Authority;
- Australian Association for Adult and Community Education;
- Greening Australia;
- Australian Landcare movement;
- North American Association for Environmental Education;
- International Council for Adult Education;
- Westgate Migrant Resource Centre;
- Migrant Resource Workers, Department of Social Security, Newport and Northern Suburbs;
- Outreach worker to Arabic community, Newport;
- Convenor, Hazardous Materials Action Group (HAZMAG);
- Convenor, Werribee Residents Against Toxic Waste.

APPENDIX B

INTERVIEW SCHEDULE

Date Interviewed:

Your Name:

Your Age:

Your Address:

How long have you lived at this address?

How long have you lived in this district?

How much longer do you think you may continue to live in this district?

What are your interests and hobbies?:

What work are you doing at the moment?

How many hours per week?

Are you currently doing any volunteer work?:

How many hours per week?

How much time would you have to get involved in an action group?

What is your highest level of education completed?

What is your main language spoken at home?

How well do you feel you speak English?:

How well do you feel you can read English?:

How well do you feel you can write English?

What are you hoping to get out of your involvement in this project?

Have you ever been in any environmental action groups?

What was this experience like for you?

Have you ever been in any other action groups?

What was this experience like for you?

Do you currently belong to any 'political' (i.e., advocacy) community groups or organizations?

Do you currently belong to any 'non- political' (i.e., community) groups or organizations?

What leadership experience do you have?

What concerns (if any) do you have about getting involved?

Do you have any special needs which may affect your involvement in this research?:

APPENDIX C

INDEX OF ENVIRONMENTAL KNOWLEDGE, SKILLS AND ACTION

Index Of Environmental Knowledge, Skills And Action

The purpose of this questionnaire is to explore:

1. How much you know about certain types of environmental actions,

2. How certain you are of being able to perform these actions,

3. Your views on how effective these actions would be for the environment if you were to do them yourself, and

4. How often you have actually done them in the last six months.

Below are listed a range of environmental action strategies. Next to each action, please put a number that shows how you rate on these five details. The key for answering each item is at the bottom of every page. Please respond honestly: there is no 'right' or 'wrong' answer.

The questionnaire looks worse than it is! You may find it easier to go 'down' each column than across the page for each 'action'.

Please answer every item. Your answers will be kept totally confidential.

Action	ITEM 1 How much do you know about:	ITEM 2 How certain are you of being able to perform this action?	ITEM 3 How effective would this be for the environment?	ITEM 4 How often have you done this over the last six months?
1. Conserving energy, water, and other resources				
2. Reducing, Re-using and Recycling				
3. Composting organic waste at home				
4. Purchasing products that have a low environmental impact				
5. Donating money to environmental causes or groups				
6. Contributing money to election campaign funds for a 'green' political candidate				
7. Taking out paid membership to an environmental group				
8. Participating in community environmental projects (such as clean-up days)				
9. Helping other people to learn about an environmental issue				
10. Encouraging someone to buy environmentally friendly products				
11. Encouraging someone to participate in a recycling scheme				
12. Encouraging someone to sign a petition on an environmental issue				
Scale	1=Nothing; 2=A little bit; 3=Some; 4=Quite a lot; 5=A great deal.	1 = Not at all; 2 = Not very; 3 = Moderately; 4 = Highly; 5 = Completely;	1 = Not at all; 2 = Slightly; 3 = Moderately; 4 = Highly; 5 = Completely;	1=Not at all; 2=Hardly ever; 3=Sometimes; 4=Often; 5=Very often.

	Action	ITEM 1 How much do you know about:	ITEM 2 How certain are you of being able to perform this action?	ITEM 3 How effective would this be for the environment?	ITEM 4 How often hav[e] you done this over the last si[x] months?
3.	Encouraging someone to join an environmental group				
4.	Encouraging someone to make a complaint about an environmental issue (e.g., contact their local politician)				
15.	Encouraging someone to take part in an environmental protest				
16.	Obtaining copies of my local council's environmental policies				
17.	Approaching local Council staff about an environmental issue				
18.	Contacting my elected local Councillors about an environmental issue				
19.	Attending meetings of my local council to discuss an environmental issue				
20.	Contacting a range of organizations for advice and/or support about an environmental issue				
21.	Writing a letter to the newspaper about an environmental issue				
22.	Contacting radio and/or TV about an environmental issue				
23.	Contacting businesses about their environmental practices				
	Scale	1=Nothing; 2=A little bit; 3=Some; 4=Quite a lot; 5=A great deal.	1 = Not at all; 2 = Not very; 3 = Moderately; 4 = Highly; 5 = Completely;	1 = Not at all; 2 = Slightly; 3 = Moderately; 4 = Highly; 5 = Completely;	1=Not at all; 2=Hardly ever; 3=Sometimes; 4=Often; 5=Very often.

Action	ITEM 1 How much do you know about:	ITEM 2 How certain are you of being able to perform this action?	ITEM 3 How effective would this be for the environment?	ITEM 4 How often have you done this over the last six months?
4. Contacting industry about their environmental practices				
5. Making public speeches about an environmental issue				
26. Helping to organize an environmental event, such as a clean-up day				
27. Organizing meetings to discuss an environmental issue				
28. Helping to organize an environmental group				
29. Leading an environmental group				
30. Finding out about my local politician's environmental track record				
31. Contacting a politician about an environmental issue				
32. Reporting an environmental offender to the appropriate authority (e.g., the Environmental Protection Authority)				
33. Voting in elections				
34. Commenting on proposed development plans				
Scale	1=Nothing; 2=A little bit; 3=Some; 4=Quite a lot; 5=A great deal.	1 = Not at all; 2 = Not very; 3 = Moderately; 4 = Highly; 5 = Completely;	1 = Not at all; 2 = Slightly; 3 = Moderately; 4 = Highly; 5 = Completely;	1=Not at all; 2=Hardly ever; 3=Sometimes; 4=Often; 5=Very often.

Action	ITEM 1	ITEM 2	ITEM 3	ITEM 4
	How much do you know about:	How certain are you of being able to perform this action?	How effective would this be for the environment?	How often hav you done this over the last si months?
5. Participating in public hearings				
6. Organizing public hearings about an environmental issue				
37. Signing petitions about an environmental issue				
38. Organizing petitions about an environmental issue				
39. Taking part in protests or rallies about an environmental issue				
40. Organizing protests or rallies				
Scale	1=Nothing; 2=A little bit; 3=Some; 4=Quite a lot; 5=A great deal.	1 = Not at all; 2 = Not very; 3 = Moderately; 4 = Highly; 5 = Completely;	1 = Not at all; 2 = Slightly; 3 = Moderately; 4 = Highly; 5 = Completely;	1=Not at all; 2=Hardly ever; 3=Sometimes; 4=Often; 5=Very often.

'Sense Of Community' Index

Below you will find some statements that people might make about the area where they live. For each of these statements, please place a number in the box next to each statement which shows how much you agree or disagree with the statement. For instance, if you strongly disagree with a statement, put number '1' in the box.

1 = Strongly disagree; 2 = Disagree; 3 = Neither agree nor disagree; 4 = Agree; 5 = Strongly agree;

1.	I think the Port Phillip area is a good place to live.	
2.	People in the Port Phillip area do not share the same values.	
3.	Other residents want the same things as me from this area.	
4.	I can recognize many people who live in this area.	
5.	I feel at home in the Port Phillip area.	
6.	Very few people in this area know me.	
7.	I care about what other people in the Port Phillip area think of my actions.	
8.	I have no control over the future of the Port Phillip area.	
9.	If there is a problem in this neighbourhood then people who live here can solve it.	
10.	It is very important to me to live in the Port Phillip area.	
11.	People in the Port Phillip area generally do not get along with each other.	
12.	I expect to live in the Port Phillip area for a very long time.	

APPENDIX D

SAMPLE GROUP EVALUATION SCHEDULE

Education Program Evaluation
Wednesday 4 February, 1998

Please take some time to think about the following questions. Please write your response in the space below each question. I do not need to know who you are! Thanks.

A reminder of some of the things we looked at in 1997:

- Setting up an action group
- How to do strategic planning – aims, objectives and strategies
- Developing ground rules for effective meetings
- Dealing with power and authority
- Working with the media
- Group members and how to handle them
- Organizing a public meeting
- Ideas for running a meeting
- How to do action research (diagnosing, analysing and planning, acting, reflecting, making new plans)
- anything else?

What is the most valuable thing you have learned in the time you have been taking part in the education program?

What changes have occurred for the Historical Society (good and/or bad) as a result of the education program?

What are some things about the education program that could have been done differently?

What are some things you would like the Historical Society to achieve in 1998?

What are some things you would like to achieve for yourself in 1998 through your involvement in the Historical Society?

What are some things you would like the Heritage Action Group to achieve this year?

How can you use what you have learned in future?

APPENDIX E

INITIAL CONTENTS OF 'STEPS FOR
SETTING UP AN ENVIRONMENTAL ACTION GROUP'.

APPENDIX F

GENERIC LEADERSHIP TRAINING MODULES
IN CORE CURRICULA AREAS

(i)   Steps for Setting Up A Group

Objectives: for participants to identify the basic stages involved in setting up an education group
Materials: White board, flip chart
Hand-out: 'Steps For Setting Up An Action Group'

Brainstorm and discussion (60 mins)
What are the steps in setting up a group? Use participants' experiences with groups as case study for exploring the development of group aims and objectives.
    Distribute handout

Debrief (10 mins)
Discuss in pairs:
*   What did I feel during this exercise?
*   What did I learn?
*   How did I learn that?
    Feedback to main group

Evaluation and Reflection (20 mins)
(Personal answers to questions followed by full-group discussion)
*   What have you learned today?
*   What worked for you as a learner?
*   What did not work for you as a learner?
*   How will you be able to use what you learned as a facilitator?
*   What issues and questions did today raise for you?
    Participants invited to add to their training diary

(ii)   Action Research

Objectives: for participants to become competent in formulating an action
               research strategy
Materials: White board, flip chart
Hand-out: Action research explained, based on Street (1996).

Presentation (20 mins)
Outline the steps, and ways, of going from issues identification to community action.
From identifying issues, conducting background research, prioritizing goals,
developing strategies, evaluating strategies, planning new strategies...
      Distribute hand-out

Small group activity (40 mins)
•   Identify some local environmental issues that participants feel very strongly
       about.
•   How would your education group go about getting started in community
       action research?
•   Evaluation strategies: How would you know if your actions were successful?
•   What would your group do with this information?

Break (10 mins)

Main group discussion (30 mins)
Feedback from groups about their action research strategy.
       How could we improve on the ideas generated?

Debrief (10 mins)
Discuss in pairs:
•   What did I feel during this exercise?
•   What did I learn?
•   How did I learn that?
       Feedback to main group

Evaluation and Reflection (20 mins)

(iii)   Communication Skills

Objectives: For participants to be able to demonstrate ways of improving verbal and non-verbal communication.

Materials: White board, flip chart

Brainstorming (45 mins)
- In your experience, how have you known when someone has really paid attention to you and listened to what you say?
  Verbal and non-verbal signs
- How have you known when someone *has not* paid attention to you or listened to what you say?
  Verbal and non-verbal signs

Discussion (15 mins)
Principles of active listening

Break (10 mins)

Role Plays (30 mins)
Group members to form pairs and role play various communication scenarios, involving differing body language, tones of voice, etc.

Debrief/group discussion (10 mins)
How did you feel when you were not listened to?
How did you feel when you were listened to?

Break (10 mins)

Role plays (30 mins)
  people adopt different roles; including observers.

Debrief (10 mins) Discuss in pairs:
- What did I feel during this exercise?
- What did I learn?
- How did I learn that?
  Feedback to main group

Evaluation and Reflection (20 mins)

(iv)   Group Skills

Objectives: For participants to identify factors that can affect group dynamics; to identify ways of improving communication and learning amongst a group of adult learners.

Materials: White board, flip chart

Hand-out   Group dynamics

Brainstorm (30 mins)

What are some of the issues that can affect communication in a group?

room set-up, personality styles, learning abilities, disability, NESB...

What are some of the different personality styles, or roles, that people may adopt in a group?

Distribute handout on role styles and how to deal with them

Break (10 mins)

Role plays (30 mins): People adopt different roles; including observers.

Debrief (10 mins):

Evaluation and Reflection (20 mins)

(v)   Power, Authority and Advocacy Skills

Guided Discussion (30 mins): What are the different types of power? (Handout)
- reward power
- coercive power
- legitimate power (i.e., authority)
- referent power
- expert power
- information power

Brainstorm (15 mins)
What sorts of power do *we* have? (Do 'power audit')
The Rights and Responsibilities of the Person in a Position of Power

Guided Discussion (20 mins)
Now do 'power audits' on people in positions of power/authority. Choose a 'goodie' and a 'baddie'. (E.g., lord mayor, corporation, politician)

- Where did these people get there power from? – What sources of power are they drawing on?
- What are the rights of a person in a position of power?
- What are their responsibilities? – What are the limits to their power?
- What does this mean for us when we deal with them?

Break (10 mins)

Discussion (20 mins): Experiencing Power and Authority
- How can we use our power?
- What are our rights to use our power?
- What are our responsibilities?

Role Plays (20 mins): negotiating, complaining, asking for help

Debrief (10 mins)

Discussion (30 mins)
- How does this relate to my role as group leader?
- How can I share power with my group?
- What do I do when people say 'NO'! What happens when I do not get what I want?

Evaluation and Reflection (20 mins)

APPENDIX G

AGENDA FOR INITIAL PLANNING FORUM, FIRST ITERATION

Agenda

10:00 am	Welcome
10:10	Introduction to the facilitators and the program
10:30	Getting to know one another
11:30	**Morning tea**
11:45	Overview of the research program
12:30 pm	Developing ground rules for an effective forum
1:00	**Lunch**
1:45	Group exercise
2:00	Action Groups and Action Research
2:45	What does it take to make a skilled action group facilitator?
3:15	Break
3:30	Setting topics and organizing the program
4:30	Break
4.35	Reflection and evaluation
4:50	Closing activity
5:00	Close

APPENDIX H

CONTENTS OF REVISED VERSION OF 'STEPS FOR SETTING UP AN
ENVIRONMENTAL ACTION GROUP', SECOND ITERATION

APPENDIX I

AGENDA OF INITIAL INFORMATION EVENING, SECOND ITERATION

7:30	**Welcome and introductions**
7:45	**Introduction to the environmental education action research project** How the project works: - What is 'action research'? - Leadership training - Group development - Investigation and Action - Peer education and support - Information gathering: keeping records - Communication: advocacy and negotiation - What has happened in the project so far? - Questions and Discussion
8:15	**What groups are around in the City of Port Phillip?** Participants from the current training program will talk about some of the various environmental groups that already exist. Where are the gaps?
8:45	**Break**
9:00	**What issues might people might like to work on?** Who would like to take part in a group? Who would like to learn how to set up a group? Who would like to be a group member?
9:20	**Getting Organized** The first steps for setting up a group Activities for groups to get started on Dates for group leader training
9:40	**Evaluation**
9:45	**Close**

APPENDIX J

EMPOWERMENT PROCESS AND OUTCOME ITEMS
IDENTIFIED DURING TRAINING, SECOND ITERATION

1. Minutes of your group's meetings:
   - the aims members identify for the group to try to achieve;
   - issues relating to your group's goals that people raise for action,
   - the actions that members decide to take (who does what),
   - the actions taken since the last meeting,
   - the *results* of previous actions taken
   - how often your meetings are held, and
   - the number of people attending meetings.

2. It is also extremely important for your group to keep copies of all your group's correspondence (such as letters sent out to local decision makers and bureaucrats).

3. It is also useful to keep records of phone calls that you make, the calls you receive, and people you meet (Who rang/who did you call? Who did you meet? What did you talk about? What happened next?)

4. Other important records to keep include:
   - a mailing list of group members;
   - a list of the contacts your group has made and how they can help;
   - a record of your group's finances and other resources;
   - a database of your members' strengths, skills, qualities and resources to share.

5. Members' suggestions:
   - keep a scrapbook of articles around our environmental issue.
   - make a list of like-minded groups (name, contact person, number)
   - make a list of people your group does not like! (name, contact person, number)

APPENDIX K

SURVEY INVESTIGATING PARTICIPANT ATTRITION

Name
Address

Date

Dear...

Re: environmental education research program

Earlier this year you called me about the environmental education program I set up in the Port Phillip area. Unfortunately, at the time you were unable to attend the training program on ways of setting up and running community groups. I am writing to let you know that, unfortunately, I am unable to conduct any further training in Port Phillip. However, there is a project underway which might interest you.

For the last few months I have been working with the St Kilda Historical Society to look at ways of involving the community in action around current threats to the urban heritage of St Kilda. The Society will be holding a public meeting on 30 November, as outlined in their enclosed flier.

In addition, two members of the current program are also planning to set up an environmental education training program in early 1998, aimed at small businesses. I am wondering whether you might be interested in getting involved in either of these projects?

As my research investigates ways of encouraging people to take part in community education, I am also interested in why people choose not to participate. I would greatly appreciate it if you could complete the attached brief survey and return it to me in the stamped addressed envelope provided. Your reply would provide me with extremely valuable information.

Please note that your reply will be totally confidential and that there is absolutely NO obligation for you to get further involved.

Sincerely

Iain Butterworth
Research Student

Environmental Education Program

Please answer the following questions, and return the sheet to me in the stamped addressed envelope. Please use the back of the sheet if you have any other comments you would like to make. Thank you for your time.

What influenced you to call about the program?
(E.g., it offered skills; chance to meet people; chance to do something...)

Why did you choose not to take part?

What suggestions do you have for ways to encourage people to get involved in community environmental education projects?