



## **Effectiveness of Action Circles in promoting community engagement and pro-environmental behaviour changes—Overview of Studies and Literature**

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### **Background**

--Environmental organizations have recognized for a long time that solutions to environmental problems must involve public participation (Stern, 2000a, cited in Monroe, 2003).

--While 77% of Canadians recognize that human activity is exacerbating climate change (Hoggan, [www.cprstoronto.com/sustainability](http://www.cprstoronto.com/sustainability)), the behaviours that would lessen this effect are not practiced universally.

--Many people want to take action, but do not have the knowledge or information as to what they can do beyond small, immediate actions that they might hear of through social marketing campaigns aimed at changing specific behaviours (e.g., recycling, turning off lights, switching to CFL bulbs). This suggests that people are seeking to become environmentally literate as a lifestyle change. (Although short-term campaigns aimed at specific behaviours or issues may serve to initially raise awareness or interest.

--Monroe (2003) notes that strategies for successfully encouraging environmentally responsible and community engagement activities must take into account both the intrapersonal and external factors that predict behaviours and behaviour change, including:

- Knowledge of environmental issues and the implication of actions (Hungerford & Volk, 1990, cited in Monroe, 2003); the collective value of individual behaviours in bringing about change (Weick, 1984; cited in Monroe, 2003); and success stories/benefits of having implemented the behavioural change (Bardwell, 1991; cited in Monroe, 2003)
- Attitudes and beliefs that engaging in the behaviour will lead to an expected, positive outcome (Ajzen, 1985; cited in Monroe, 2003), and values such as an empathy for the environment or a personal investment in issues, based on prior activities (Hungerford & Volk, 1990; cited in Monroe, 2003)
- Perceptions about social pressure (norms) to carry out the behaviour (Ajzen, 1985; cited in Monroe, 2003)
- Empowerment variables such as perceived skill in taking action, knowledge of action strategies, and an internal rather than external locus of control (Hungerford & Volk, 1990; cited in Monroe, 2003)

--Knowledge of issues combined with empowerment variables can both be increased and strengthened more effectively through longer term educational activities promoting environmental literacy than short



term social advertising campaigns promoting a specific behaviour (Schwartz, 1977; Vining & Ebreo, 2002. Cited in Monroe, 2003)

--Furthermore adult learners are ideal audiences for this kind of learning because “they bring a sense of self and a variety of experiences to the educational venue, they are motivated by relevant information that will enable them to solve problems and they are self-directed” (Monroe, 2003: p.116)—therefore likely to continue learning if the experience is satisfactory (Knowles, 1973; Zemke & Zemke, 1984. Cited in Monroe, 2003).

Monroe, Martha C. (2003) “Two Avenues for Encouraging Conservation Behaviors” *Human Ecology Review*, Vol. 10 (2):113-125.

--Programs such as Be the Change Action Circles, the NorthWest Earth Institute’s reading circles, and Gershon’s community Eco-teams provide individuals with the information that sensitizes them to environmental and social engagement issues and strengthens environmental literacy, knowledge about how to acquire the skills or engage in the practices that empower them to start making immediate changes.

### **Success of Programs such as BTC, NWEI Curricula, and EcoTeam program (through Gershon’s GAP)**

--Programs such as BTC Action Circles, NWEI reading circles and Gershon’s EcoTeams provide both the information to instil environmental literacy and an environmental stewardship ethic, practical information on attaining and applying the skills to make behaviour changes, feedback about the impact of changes made, and peer support to facilitate committing to and following through on specific, lasting behaviour changes.

### **NWEI**

--NWEI has been offering its program for 15 years. It has undergone two evaluation studies within the last 10 years.

1. In 2003, Ciliberti & Associates conducted a study to evaluate the impacts of NWEI programs on participants, vis-a-vis changes in awareness, values, attitudes and perceptions, and actions. Based on feedback from 10 focus groups, 271 survey respondents and 29 personal interviews, the study found that the discussion courses:

- provide increased awareness of the need to protect the earth and inspired in participants a renewed sense of hope, reinforcement of their values, and a new vision of the world;
- produce high levels of motivation and commitment that support participants in making and maintaining changes;



- engendered changes in the both consumption patterns and broad lifestyle choices as a result of the increased awareness of the need to protect the earth, and;
- motivated participants to influence others by setting examples, engaging in dialogue and advocacy and organizing groups, primarily within participants' existing social networks such as family, neighbourhood, church and the workplace.

2. In 2008, NWEI conducted a survey of 450 individuals who had participated in an NWEI course. The key findings reveal that:

- 80% of surveyed participants feel a greater sense of personal obligation for solving environmental changes;
- At least 73% of survey participants now make reductions in energy and water consumption on a more regular basis;
- 79% of survey participants buy more local and organic produce;
- More than 72% of survey participants take more seriously the challenges of biodiversity loss, climate change, rising personal consumption and limited natural resources, and;
- Almost 60% volunteer for environmental causes and make alternative transportation choices more frequently.

--NWEI has recently partnered with BTC Earth Alliance and uses BTC's Action Guide, which allows for self-directed behaviour changes, in conjunction with accountability dates for following through on actions. It is unclear whether NWEI participants were formerly encouraged to commit to behaviour changes as part of the curricula (and if so was it included as an item in their survey?), but it would be interesting to follow up with another survey within the next year or two to see if and how making weekly commitments to engage in one action has affected long term behaviour change.

### **Gershon and Global Action Plan for the Earth's EcoTeam Program**

--This program underwent a self study in 1998 by Global Action Plan in which it examined the methods used and benefits to participants. This study was based on a mail-out survey to 50 Issaquah residents who had participated in the program between 1992 and 1997. Thirty one individuals completed the survey for a completion rate of 62%.

The *most important* (self-reported) benefits of participating in the EcoTeam program included:

- A more informed and stronger stewardship ethic (48%)
- A greater appreciation of the individual's role in conserving community natural resources and protecting the community's environment (45%)
- Developed life-long, resource efficient lifestyle practices (42%)



- Recognition that I can and do make a difference (42%)

When asked to indicate their reasons for joining an EcoTeam, the most important reasons cited included:

- To be a better steward of resources for the sake of participants' children (74%)
- To make a difference (71%)
- To learn how to reduce one's environmental impact (68%)

When participants were asked which of the program elements enabled them to make changes in resource use, the following were rated as being the most important:

- The support and encouragement of the team (68%)
- The step-by-step format of the Earth Actions in the EcoTeam workbook (58%)
- The knowledge learned from other EcoTeam members (52%)

Participants also undertook a variety of volunteer activities both within the EcoTeam program and outside of the program, including volunteering to coach an EcoTeam (32%), transferring knowledge and encouraging behaviour changes in the workplace (45%), continuing to interact with former team members in neighbourhood activities such as carpooling (26%), & volunteering to improve the neighbourhood (26%)

For a complete copy of the study, see <http://www.empowermentinstitute.net/files/IsWaSurvey.pdf>

--A 2 year longitudinal study the EcoTeam program implemented in Leiden, Netherlands (Harland & Staats, 1997) indicated that not only were a notable proportion of the behaviour changes maintained, but that actions not initially adopted at the end of the program had subsequently been implemented by some of the participants and improved upon.

(See <http://www.empowermentinstitute.net/files/Studies.html> for more details about the study)

### **The role of Peer Support and Accountability in Committing to Behavior Changes**

--Monroe (2003) notes that activities which extract a commitment from people, either in writing or verbally, tend to increase the likelihood of changing individuals' behaviours. It is assumed that the strategy works because it results from a desire to achieve consistency between our behaviours and our statements, thus once people have committed to an action they are more likely to follow through—and more likely to subsequently commit to more demanding activities (Jay Kassirer, tools of change) (<http://www.toolsofchange.com/en/tools-of-change/obtaining-a-commitment.html>)



--Kassirer at the tools of change website offers the following observations on using this strategy to change behaviour:

- It is best to ask for a commitment after establishing that a person is interested in doing the activity
- A written commitment tends to have a more lasting effect than a verbal pledge
- Commitments shared with others in public are also more effective than anonymous, private pledges
- Asking for a commitment to change a behaviour or take some action will not work if (1) a person is not already motivated to do the action or (2) feels pressured to commit

--A subsequent study of the EcoTeam project demonstrates the efficacy of getting individuals to commit to completing an action. The second study was conducted as part of a Master's thesis project investigating the Community-Based Social Marketing Model of behaviour change (Pickens, 2002). As part of her research, Pickens developed a survey (different from that used by GAP in 1998) and sent it to 250 individuals who had participated in the EcoTeam project in Deschutes County, Oregon. Of the 76 individuals who responded to the survey (response rate was 36%),

- **89.5% agreed or strongly agreed that "making a verbal commitment to my teammates to complete an 'action' encouraged me to actually follow through with it";**
- 86.8% agreed or strongly agreed that "My behavior changed more by participating on an EcoTeam than it would have if I read a book or brochure about similar actions";
- 85.5% agreed or strongly agreed that "The EcoTeam program helped me move from awareness of an issue to actually taking action to change that habit in my life.

(Pamela Mae Pickens, 2002, "Community-Based Social Marketing as a Planning Tool", Community & Regional Planning Masters Project, University of Oregon. See

[http://www.empowermentinstitute.net/files/CBSM\\_MastersProject.pdf](http://www.empowermentinstitute.net/files/CBSM_MastersProject.pdf) for complete report.)

--Another study that used accountability to others (in the form of a written commitment) as a strategy for encouraging environmental behaviour changes is the **Action By Canadians/Count Me In** program, initiated by Enviro RIS between May 1999 and October 2000. The program took the form of workshops delivered to over 3500 people in 45 companies and government offices across Canada. The workshop included a presentation on climate change and focused on making a difference through individual actions. At the end of the workshop, participants were given the opportunity to make a commitment to reduce greenhouses by adopting specific measures. The results of the study also demonstrated that making a commitment that included follow up resulted in a reduction of the participants' contributions to greenhouse emissions.

For more details on this study, go to <http://www.toolsofchange.com/en/case-studies/detail/178>



--The effect of contract witnessing on motivation to complete an action or behavioural change has also been examined in the context of health care issues (weight loss) and coaching strategies for goal setting:

1. J.R. Ureda (1980) investigated the impact of commitment on achieving behavioural-change goals in a weight control program. One-hundred six adult volunteers were randomly assigned to either treatment or control group in a behavioural self-management weight control program lasting for a total of eight hours over 4 weeks. Participants in the treatment group were given take-home contracts that had to be signed by at least one other friend, peer or relative in addition to the participant, whereas individuals in the control group did not have anyone else sign their contracts. Ten to 15 weeks following the end of the program, participants who had others witness and sign their contracts were observed to be holding stronger to their behavioural intentions and losing weight at a significantly faster rate than individuals in the control group.

J.R. Ureda, "The effect of contract witnessing on motivation and weight loss in a weight control program." *Health Education and Behavior*. 1980 Fall; 7(3):163-85

2. A set of statistics that is frequently cited on various web-based articles related to goal setting and is attributed to the American Society for Training and Development (Have not been able to find the original article or year this study first appeared.) shows the probability of accomplishing a goal depending on the behaviours taken. While consciously deciding to adopt an idea yields a 20% likelihood that a goal will be accomplished, putting a plan in place to complete the action increases the probability to 50%, making a commitment to another person to complete the action increases the probability of accomplishing the goal to 65% and having a specific accountability appointment increases the probability to 95%.

(Study on Organization Behavior from Stanford, cited by the American Society for Training and Development. Year???)

--Social support and feedback from peers and friends re goal setting and behavioural change also increases effectiveness in following through on and achieving one's goals.

1. A study that tested whether the effectiveness of behaviour therapy for obesity might be improved by the additions of (1) an aerobic exercise regime and (2) a maintenance treatment comprising contact with a therapist by phone and mail as well as peer based self-help group meetings. While the group receiving aerobic exercise in addition to behaviour therapy lost more weight than the therapy only group during treatment, the individuals in the maintenance program after treatment demonstrated better weight loss progress than those in the "no further contact" group in the 18 months following the treatment.

Perri, Michael G.; McAdoo, William George; McAllister, David A.; Lauer, Joan B. & Yancey, Donna Z. "Enhancing the efficacy of behavior therapy for obesity: Effects of aerobic exercise and multi-



component maintenance program.” **Journal of Consulting and Clinical Psychology**. Vol. 54(5), Oct 1986: 670-675.

2. In another study that examined the benefits of social support for weight loss, 166 participants were recruited either alone or with three family members then randomly assigned to a standard behavioural treatment or a standard behavioural treatment with social support strategies. A higher proportion of the individuals who were recruited with friends and given a behavioural treatment plus social support strategies than those who were recruited alone (1) completed the treatment (95% compared to 76% respectively) and were better able to maintain their full weight loss (66% compared to 24%, respectively.)

Wing, Rena, and Robert W. Jeffery, “Benefits of recruiting participants with friends and increasing social support for weight loss and maintenance.” **Journal of Consulting and Clinical Psychology**. Vol. 67 (1), Feb 1999: 132 – 138.

3. Kolb, Winter and Berlew (1968) (cited in Kolb & Boyatzis, 1970) found that when management students used a previously defined method for engaging in self-directed behaviour change (reflection on behaviour, selection of a limited and well defined goal and record keeping tracking progress toward the identified goal) while participating in self-analytic groups, the feedback from the group increased the likelihood of successfully attaining their goals from 5% to 61%.

Kolb, David A. & Richard E. Boyatzis “Goal Setting and Self-Directed Behavior Change.” **Human Relations** Vol 23 (5), 1970, pp439-457.