GOAL SETTING FOR SUSTAINABILITY:  
A NEW METHOD OF ENVIRONMENTAL EDUCATION

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This thesis is submitted in fulfilment of the requirements for the Degree of  
Doctor of Philosophy  
17th June 2005

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DECLARATION

I declare that this thesis is my own account of my research and contains, as its main content, work that has not been previously submitted for a degree at any tertiary education institution.

______________________________
Lucy Ann Sheehy
If current environmental problems are to be addressed and future environmental problems are to be prevented, significant changes are needed in the way people live. Environmental education has been identified as an important tool for encouraging people to make the changes needed for sustainability. However, environmental education has been largely ineffective in doing this. Education about the environment is being achieved, but education that creates the skills and motivation for action is not.

The purpose of this research was to investigate the potential of goal setting to be used in environmental education programs to develop the skills and motivation required to change environmental behaviour and create positive environmental outcomes. Goal setting is one of the most replicable and reliable of psychology theories, with extensive evidence of its benefits for increasing performance and changing behaviour. The premise was to take an already proven and well-established behaviour change theory and apply it to environmental education.

A framework was developed, that enables goal setting to be included in an environmental education program. In developing this framework, the environmental behaviour change literature was reviewed and the components of successful environmental education were identified. The goal setting literature was also reviewed to determine the characteristics of an effective goal and how goal setting could be facilitated to create greater goal achievement. As there has been little research on the community’s attitudes towards goal setting, a questionnaire was developed to determine the extent of goal use in Perth, the characteristics of those goals and the linkages between goals and behaviour. The survey indicated that most people were already using goals in their daily lives and would respond positively to the use of goal
setting in an environmental education program. Thus, the new environmental education framework included providing action knowledge, teaching goal setting skills, setting goals and giving continued feedback and support. This environmental education framework was then implemented and evaluated through two environmental education programs, Green Houses and Living Smart.

The Green Houses program assessed the effectiveness of the framework for reducing household energy consumption and the effectiveness of different communication methods for delivering the framework. Personal communication through the workshop was the most effective method for changing behaviour, with workshop participants reducing their energy consumption by 17%. The website and booklet approaches also had reductions in energy consumption (7% & 8%, respectively). The schools group was the only group not to achieve a reduction, suggesting that what the students learned about energy saving was not being transferred to the home environment or impacting on their parent's behaviour. Importantly, the groups that set goals reduced their energy consumption by an additional 5% compared to the corresponding control groups and maintained those savings for a significantly longer period of time.

The Living Smart program then assessed the effectiveness of the framework for creating behaviour change across a range of sustainability topics. As a result of the program, participants significantly increased both their environmental knowledge and sustainable behaviour. A control group that received the same environmental information as the Living Smart group, but no goal setting skills, only increased their environmental knowledge. This demonstrated that environmental information alone is not sufficient for changing behaviour. Qualitative evaluation identified that goal setting facilitated behaviour change because it gave participants direction and strategy and increased their motivation and commitment to change. Importantly, the goal setting
process worked equally well across all the sustainability topics, suggesting that it is applicable to a variety of behaviours, not just energy conservation.

In conclusion, the goal setting process and framework created significant behaviour change that was maintained longer than when goal setting was not used. The goal setting process and framework was delivered effectively through a range of communication strategies and was applied effectively to a range of environmental behaviours. Therefore, goal setting is an effective and valuable behaviour change tool that has great potential across a range of environmental education programs to create positive environmental outcomes in, for and about the environment.
I would like to thank the following people for the help and support they gave towards the completion of this thesis.

To my supervisor Dr Peter Dingle for sending me in the right direction, for his boundless enthusiasm and for always looking out for my best interests.

To those involved in the Green Houses program at the Southern Metropolitan Regional Council. Particularly Dr Stephanie Jennings who believed in the program from the beginning and always gave her support. To Kim Holland, the Green Houses project officer, who read many electricity meters for me and shared many cups of tea with me, thankyou very much.

To those involved in the Living Smart program, Caroline Raphael (City of Fremantle), Sam Richardson-Newton and Jan Bayman (Meeting Place Community Centre) and Stephanie Jennings (SMRC). It was a pleasure and a great experience to work in such a unique partnership on such a fabulous program.

To Dr Catherine Baudains who read my thesis and was kind enough to say many nice things about it. For being a friend on campus and letting me turn up at her door unexpectedly to ask questions I probably should have found the answer to myself. To Ben Radford who also read some of chapters and reassured me that my data was okay.

To my family, for their support and encouragement and for not hitting the fan when I told them I was going back to uni again!

To Nik, my boyfriend, whose love and support made things much easier. For listening when I needed to talk about my work, even when he wasn’t sure what I was talking about, and for having the patience to read all of my first drafts. Thanks and kisses, it will be your turn next!
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