



School Green Gym

Evaluation findings: health and social outcomes 2009

1. Introduction

The Conservation Volunteers Green Gym promotes health and wellbeing by involving people in practical activity to improve the environment. The Department of Health Section 64 grant enabled TCV to apply the Green Gym model to 9 primary schools between January 2007 and March 2009, thus helping to address concerns such as growing childhood obesity and depression. At each school, a TCV Officer has run a weekly Green Gym session throughout term time. The sessions run for 60 to 90 mins and involve the children in environmental activities, either in the school grounds, or at nearby open spaces. Groups of approximately 10 children were involved each term.

2. About the evaluation

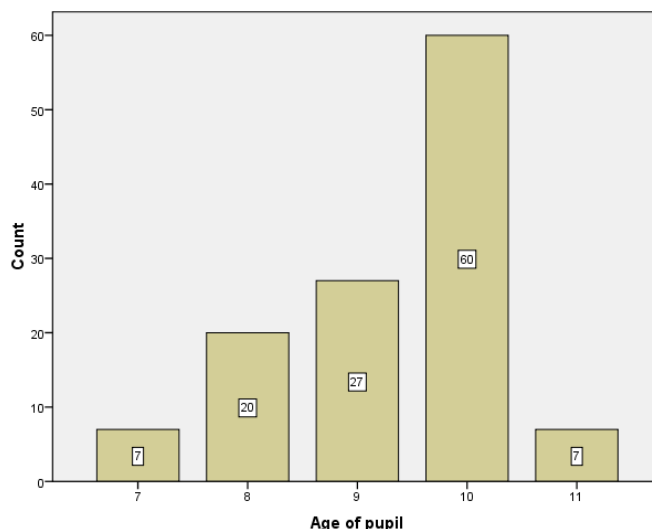
TCV commissioned Oxford Brookes University, who evaluate the adult Green Gym, to undertake an independent evaluation of the School Green Gym pilot. Oxford Brookes developed a questionnaire to monitor the changes in physical activity levels, benefits to physical and mental health and self-confidence. The questionnaire included the PedsQL: Paediatric Quality of Life Inventory™. PedsQL provides three measures: Physical Health Summary Score, Psychosocial Health Summary Score and a Total Scale Summary Score. Introductory questionnaires were administered before children began Green Gym. Continuation questionnaires, which included questions about the children's experience of Green Gym, were administered after they had completed the 10 week programme.

The evaluation ran from September 2007 to March 2009, after an initial delay as the University sought ethics approval, which was subsequently granted.

3. About the participants

In total, 122 children completed evaluation questionnaires, aged between 7 and 11 (Figure 1). 65 boys and 57 girls took part.

Figure 1: Age of Participants



4. The Findings

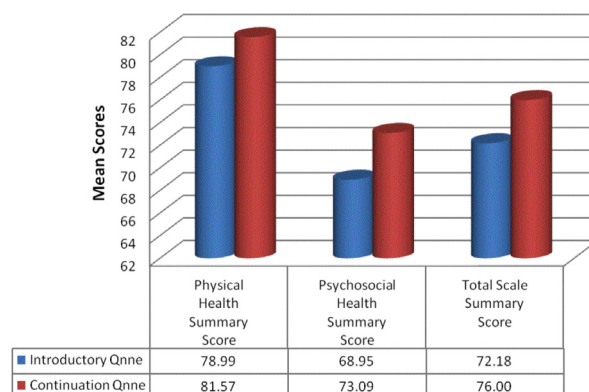
4.1. Physical and Mental Health

Figure 2 shows the comparison of Physical Health, Psychosocial Health and Total Scale Summary Scores on the introductory and continuation scores as measured by the PedsQL.

The Physical Health Summary Score improved after the 10 week period of Green Gym, with an increase of 2.5 points, although this was not statistically a significant improvement.

Figure 2

Mean PedsQL Summary Scale Scores for Introductory and Continuation Questionnaires (N=122)



PedsQL Physical Health Summary Score (PHSS): $t=-1.37, n=122, df=121, p=.172$ (two-tailed)
 PedsQL Psychosocial Health Summary Score (PsHSS): $t=-2.53, n=122, df=121, p=0.012$ (two-tailed)
 PedsQL Total Scale Summary Score (TSSS): $T=-2.71, n=122, df=121, p=0.008$ (two-tailed)

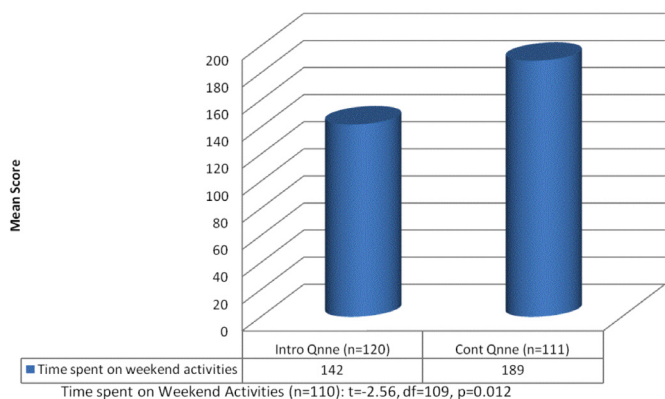
The improvement in Psychosocial Health Summary Scores was even greater, with an increase of 4 points. This improvement was statistically significant and coupled with the significant improvement in the Total Scale Summary Scores suggests that children taking part in Green Gym reap the benefits in terms of both their physical and psychosocial health.

4.2. Physical Activity Levels

The School Green Gym aims to increase children’s physical activity levels. We were therefore interested to see whether children became more active in other areas of their lives, as a result of attending Green Gym. The questionnaire asked children about their activities at the weekend, as an indicator of their overall physical activity level.

Figure 3

Time spent on weekend activities (n=110)



Our findings show that weekend physical activity levels increased significantly after 10 weeks with the Green Gym, from 142 to 189 minutes (Figure 3).

4.3. Motivations for Joining

The top motivation for joining the Green Gym was ‘improving my school’, with 88 children citing this as a reason (Figure 4). Other major motivators were ‘learning new things’ and ‘being more active/fitter’ (both cited by 86 children). These findings suggest that the Green Gym may be attractive to children who don’t engage in traditional physical activity, such as sports, but who could be motivated by making a difference to their school environment and learning new gardening and nature conservation skills.

4.4. Children’s views on Green Gym

In the continuation questionnaire, we asked children to tell us how they felt about Green Gym, using smiley, sad and neutral faces. The picture was overwhelming positive, with the majority of children indicating that they were happy with their experiences in the Green Gym (Figure 5). In particular, children enjoyed working with friends (110). Their feedback also suggested that they had fulfilled their main motivations in joining the Green Gym, as children were happy that they had improved their school grounds (103); learnt how to garden and use tools (103) and learnt

Figure 4

Why did you join Green Gym? (N=122)

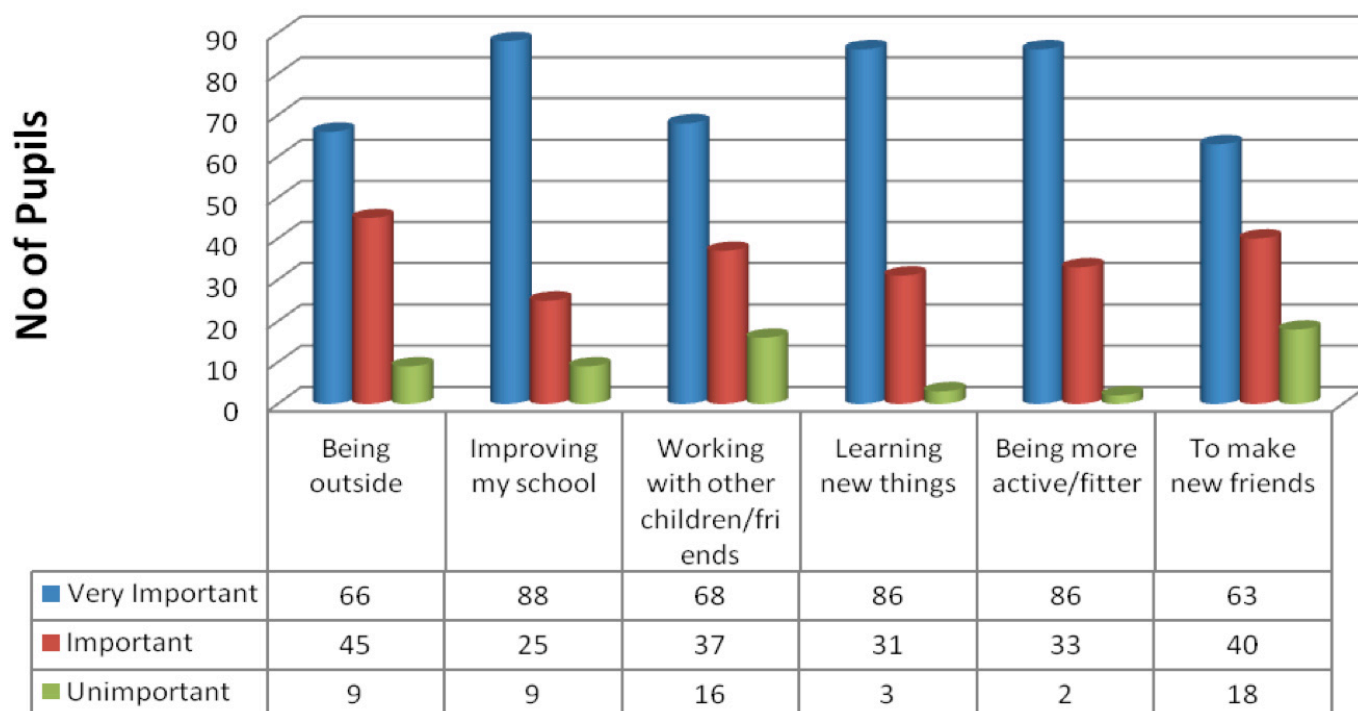
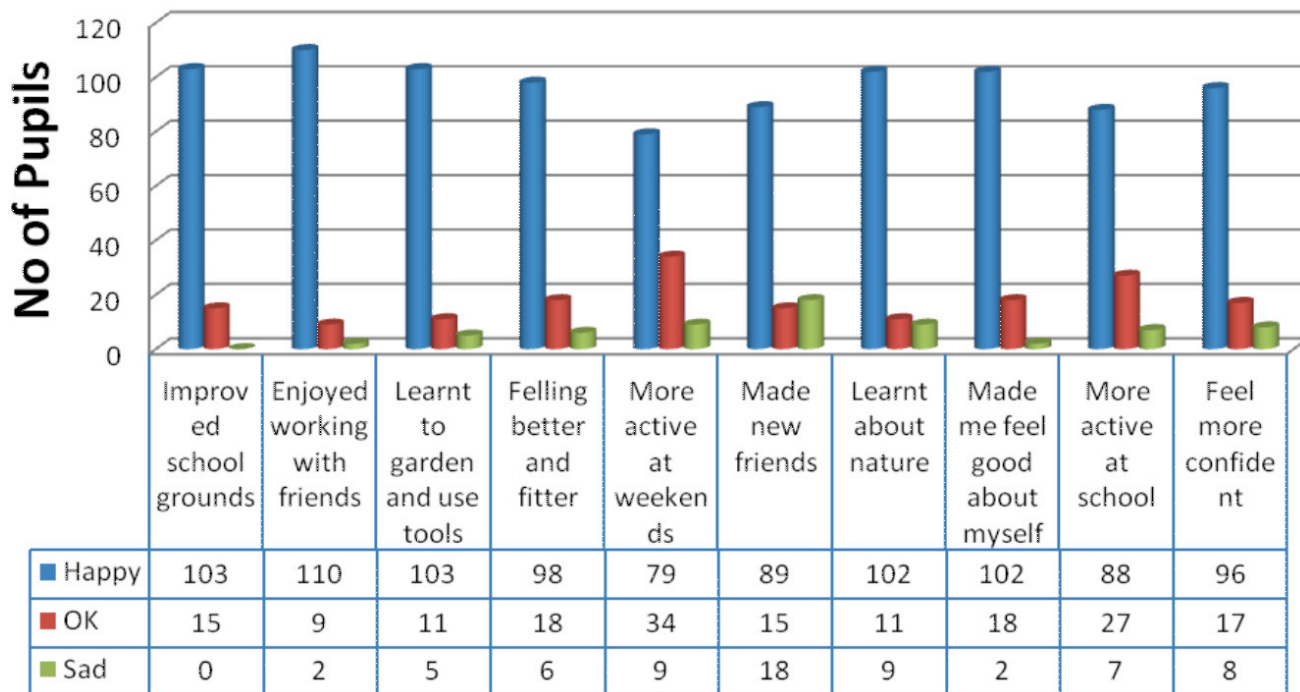


Figure 5

What did you think about Green Gym? (N=122)



about nature (103). In addition, 102 children were positive about the statement 'Green Gym makes me feel good about myself', which reinforces the physical and mental health improvements shown by the PedsQL.

5. Suggestions for future research

Future evaluation could consider:

- Whether the positive effects shown by the 10 week programme are sustained after the School Green Gym ends.
- Whether a longer programme would increase the benefits and sustain them without the weekly input from Green Gym.

6. Conclusions

The findings show that the childrens' Psychosocial Health and overall Total Scale Summary Scores (a combined measure of Physical Health and Psychosocial Health) improved significantly after 10 weeks of involvement in Green Gym. This is supported by children's own views, with 102 children positive about the statement that 'Green Gym made me feel good about myself'. The

findings also show that children's physical activity levels at the weekend increased significantly after the 10 week Green Gym programme. In addition, children reported other important benefits, such as improving their school grounds and learning about gardening and nature.

These positive findings demonstrate the benefits of the Green Gym in a school environment. TCV will use these results as the basis for rolling out the Green Gym to other schools in order to address the growing problem of inactivity and concerns over childhood mental health.

Acknowledgements

TCV is grateful to the Department of Health whose support has made it possible to commission this important research. We would also like to thank Dr. Paul Yerrell at the School of Health and Social Care at Oxford Brookes University for undertaking the evaluation on our behalf. This report was compiled by TCV, based on findings and analysis by Dr. Paul Yerrell.



“Green Gym has provided a fantastic alternative way for children at our school to be active. It fits in well with our Healthy Schools development and the children involved have a real sense of pride in their garden, which has been great to see. Some of our children who lack confidence in school, have taken pleasure in showing other children in the class what they have grown.”

Abi Fido, Year 5 teacher, Oakwood Primary scheme

Feedback from children in Years 3, 4 and 5 has also been very positive:

“I get really excited the closer it gets to Green Gym each week.”

“This is the best after-school club ever!”

“My favourite bits were: digging, playing in the puddles and getting mucky.”

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