



CASE

STUDY

Dorchester Primary School (Sutton)

Six workshops on food waste prevention, food waste recycling and healthy and sustainable eating, as well as one campaign day (healthy and sustainable eating focus), were run for Year 5 pupils (nine to ten-years old) at Dorchester Primary School in Sutton. In addition, parents were invited to attend weekly cooking workshops which also ran for six weeks and focused on healthy sustainable eating, and food waste prevention.

The workshops were delivered in January and February 2019 by Groundwork London as part of the TRiFOCAL 'Small Change, Big Difference' campaign.

Highlights:

- All pupils surveyed in the post-intervention survey said they really enjoyed the campaign day which focused on healthy sustainable eating. Improvements in knowledge around this topic were also observed following the workshops.
- Parents' confidence in healthy sustainable eating, food waste prevention and recycling increased following the workshops.
- The follow-up activities to the workshops and campaign day were exceptional at Dorchester. They included setting up a community fridge and – with the help of Groundwork London – more growing boxes. These activities link to the campaign messages of food waste prevention and healthy sustainable eating.

Background

Dorchester Primary School has approximately 655 pupils with an above average proportion of pupils from minority ethnic groups and who speak English as a second language.

Prior to the workshops, the school had already integrated the topic of healthy eating into their science and PSHE (Personal, Social and Health Education) curriculum. In addition, the school already provided some growing boxes for vegetables (which are used in school lunches) and runs a weekly after-school healthy eating cookery club for pupils.

The school was not actively addressing food waste prevention or recycling, as the council does not currently provide separate food waste collections for schools in Sutton.

Objectives

The three key messages of the campaign were:

1. Preventing avoidable food waste
2. Recycling food waste
3. Eating healthy and sustainable foods

The specific objectives of the workshops were for pupils and parents to: increase their knowledge of the key messages; adopt positive attitudes and behaviours around the key messages; and, spread their learnings to other pupils, parents and staff.

Activities

Dorchester Primary School was one of only two schools who used an in-depth whole-school approach to promote and cascade the campaign messages, including: pupil workshops, parent workshops and engagement with kitchen staff.

Pupil workshops were run for three classes in Year 5. One class received the workshop delivered by Groundwork London staff (Blue Class – 27 pupils) whilst the other two classes (60 pupils) received workshops delivered by teachers at the school.

Using a co-production model, pupil workshops were written by Groundwork London staff with teaching experience and reviewed by primary school teachers. The workshops focused on pupil engagement involving interactive learning activities¹ around food waste and healthy sustainable eating.



Figure 1 - School catering company (Caterlink) making pizza from surplus food, with pupils.

The workshops also aimed to empower pupils to design, promote and run their own campaign to endorse the key messages. The pupils and staff chose to run a campaign around food waste prevention titled 'Stop the Waste and Start the Taste!'. The campaign day included: smoothie making, using surplus bruised and wonky fruit; a 'leftovers' food stall, providing dishes made using leftovers; launching a community fridge which was accessible to parents; and the creation of pizzas using leftover vegetables which was run by the school's catering company, Caterlink [Figure 1].

At the final workshop, results were reviewed, pupils' knowledge, attitudes and habits were assessed, and learnings were shared through the development of a school action plan which would allow work to continue after the workshops. The action plan was displayed within the school.

To reinforce the campaign messages highlighted in pupil workshops, an in-depth whole school approach was adopted, this included designing additional activities for both parents and kitchen staff. These activities contributed to the same objectives and aligned with TRiFOCAL's wider objective to engage with citizens across London. In total 11 parents attended weekly cooking workshops over the course of six weeks learning tips on food prevention and reduction. In addition, the catering company and kitchen staff delivered workshops with pupils, held a stall at the campaign day and amended their menu.

Results

The project was evaluated using multiple tools: a weekly lunchtime food waste audit, a questionnaire completed by teachers and parents, and key performance indicators (including homework pledges and counts of pupil, parent and teacher engagement).

¹ See accompanying [Fact Sheet](#) for comprehensive list of workshop activities.

In addition, pupils were also evaluated using a pre- and post-intervention survey in the form of a quiz². Out of 27 pupils who attended the workshops, 26 completed both the pre-intervention and post-intervention survey, the results of which can be seen below.

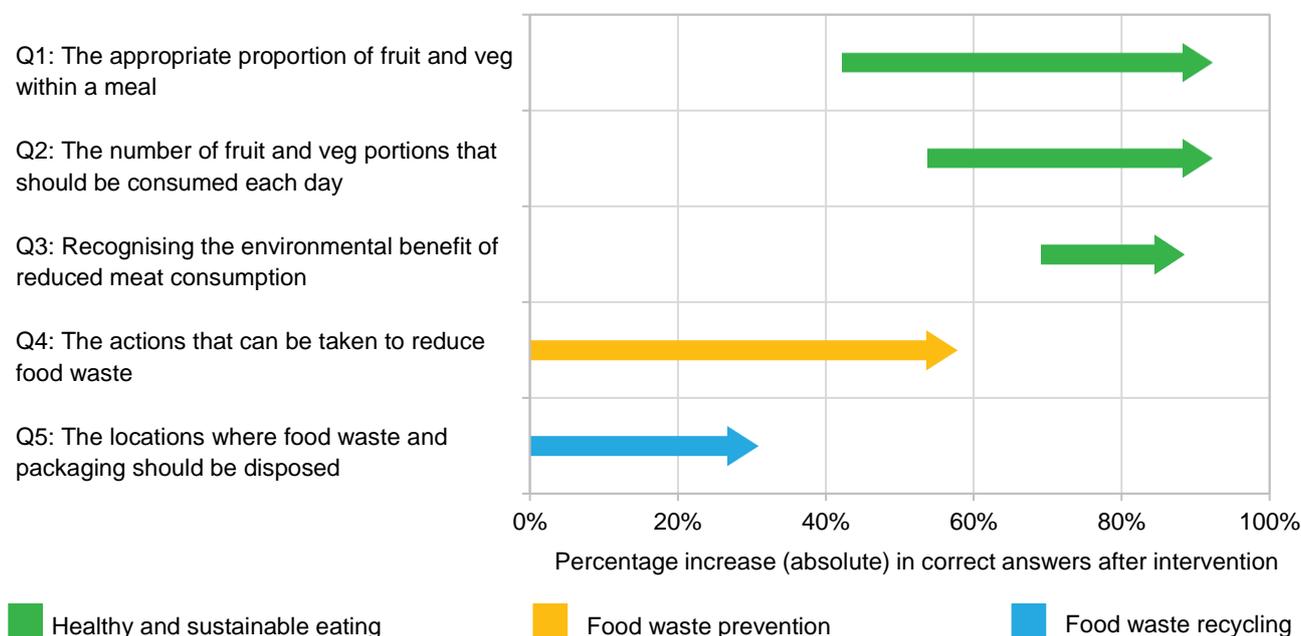


Figure 2 - Percentage increase in correct answers (post-intervention) from pupils completing the 'Small Change, Big Difference' quiz.

Knowledge

Low prior knowledge of food waste prevention and recycling improved following the workshops. Initial understanding of food waste prevention methods and food waste recycling was very low. In the pre-intervention survey, none of the pupils could identify all the correct answers when asked what things could be done to reduce food waste. However, when asked the same question in the post-intervention survey, 15/26 pupils were able to identify all three correct answers. In addition, in the pre-intervention survey, none of the pupils correctly identified all five correct disposal methods for food waste and packaging items. In the post-intervention survey 8/26 (31%) pupils correctly identified all five appropriate methods. However, it should be noted that this was significantly lower than the post-intervention average for all TRiFOCAL schools (49%).

Pupils had relatively high levels of knowledge for healthy and sustainable eating, which showed further improvements following the workshops. In the pre-intervention survey, 11/26 pupils identified the correct proportion of fruit and vegetables on a food plate, 14/26 pupils identified the correct portion of fruit and vegetables that should be eaten a day and 18/26 pupils recognised the environmental benefit of reduced meat consumption³. In the post-intervention survey these figures had increased to 24/26, 24/26 and 23/26 respectively.

Attitude

The pupils' enthusiasm and positive attitude towards the campaign day was much higher than the average for all TRiFOCAL schools. All pupils (100%) reported the campaign day to be one of their favourite parts of the workshops compared to only 74% of pupils across all TRiFOCAL schools. This enjoyment may have reflected the healthy sustainable eating topic, as pupils had prior knowledge in this area and because of

² The full quiz can be viewed at <http://resources.trifocal.eu.com/resources/education-packs/>

³ In later TRiFOCAL workshops the 'sugar and fats' answer was removed from Question 3 of the quiz as it was believed to be causing confusion amongst pupils. This is likely to have resulted in a greater number of correct responses when compared to earlier workshops.

the co-production approach they were able to choose their topic and may have felt more ownership as a result. Pupils also showed high levels of knowledge on healthy sustainable eating in both the pre and post-intervention survey, demonstrating both an existing knowledge, combined with clear improvements following the workshops.

It is possible that high levels of pupil enthusiasm were facilitated by the class teachers and parents, as well as involvement of the kitchen staff who assisted pupils in making pizza for the event. The facilitators of the workshops noted the exemplary commitment from the class teacher throughout the project, very keen interest from parents at the campaign event, and dedication from the parent cookery group and kitchen staff.

Behaviour

Pupils took further initiative to set and complete more pledges. All 27 pupils attending the workshops made and completed their two homework pledges (one on healthy and sustainable eating and one on food waste prevention/recycling) as part of the workshop activities. However, by the end of the workshops pupils had made and completed an additional 23 pledges. This may be due, in part, to a 'pupil pledge sticker chart' which was displayed in the pupils' classroom. The chart acted as a visual reminder and encouraged pupils to continue making pledges.

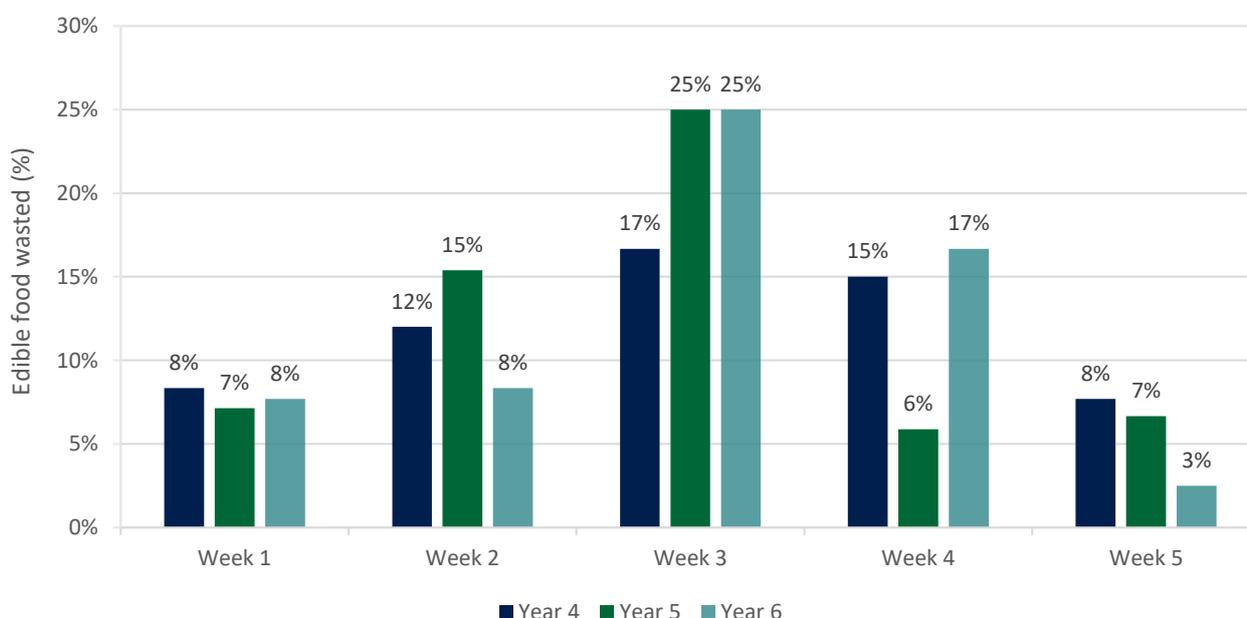


Figure 3 - Results from the lunchtime food waste audits conducted alongside the project workshops.

The audit showed no clear evidence of food waste reduction within the school but anecdotal evidence did suggest pupils were making behaviour changes at home. The school plate waste data showed large variation for Years 4, 5 and 6, with Year 5's food waste ranging from 6% to 25% [Figure 3]. Facilitators suggested that food waste variations for Years 4 and 6 were likely due to lack of clarity around the campaign and its messages, as they had not received the workshops. However, facilitators also reported that the pupil 'Food Waste Warriors' and 'Pledge Monitors' in this school took their role very seriously, and encouraged other pupils to make pledges and reduce food waste at lunch time. Parents also commented on how much the project had impacted their child's behaviour towards food waste at home, with their children pestering them about food recycling, doing FIFO (First in First Out), using leftovers and making smoothies.

Parents' confidence around all three campaign topics increased following the cookery workshops. Between a pre- and post-intervention questionnaire, the number of parents 'very confident' or 'fairly confident' in being able to: prevent food waste increased from 7/10 to 9/10; recycle food waste increased from 7/10 to 10/10; and choose/prepare healthy and sustainable food increased from 5/10 to 8/10.

Cascade effect

Permanent changes were made to the school's infrastructure to encourage parents, staff and the wider community to change their food waste behaviour. The school launched a community fridge and local shops promised to supply surplus food for the fridge. In addition, Groundwork London's Corporate [Partnerships Team](#) built a shed to secure the fridge and helped to clean up the school's eco-garden, including building more growing boxes so that the pupils could grow their own food for the fridge.

Workshops helped establish an ongoing network between the school, parent cookery group and Groundwork London, which collaboratively supported the pupils in spreading the campaign messages. Following the cookery workshops, parents that had attended set up the 'Dorchester Foodies' Facebook group which shared leftovers recipes and top tips on food waste prevention. The school promoted the group through its newsletter and the group requested a monthly nudge from Groundwork London to ensure relationships were maintained.

The school aided in further cascading information about the pupils' campaign day to the local community. This included promotional coverage in the local newspaper, on [Sutton Council's website](#), the [Guardian](#) and in Dorchester School's newsletter. The facilitators reported that the pupils were excited that their campaign had created a great legacy and the head teacher hoped to build more links with the community to help produce a wider societal change in relation to food waste.

Challenges and considerations

While there was some evidence of a positive attitude and intended behavioural change towards food waste disposal, the interest was relatively small. For instance, an intention to change their behaviour was indicated in the fact the all pupils who did not have a food waste caddy at the beginning of the workshops (at least 12), had received one by the end. However, when asked what they would do differently, only 4/26 pupils mentioned food waste disposal. These results may have been influenced by the absence of several pupils from lesson 1 (where the information on food waste disposal was taught) and the campaign choice to focus on food waste prevention rather than recycling.

Logistical and operational challenges occurred during the workshops although the impact of these appeared to be minimal. The school had double booked the campaign day with another event that the head teacher and class teacher had to attend. However, the whole-school approach that was taken at Dorchester likely mitigated potential negative effects, as other staff and parents were available to help facilitate a very successful day. In addition, some pupils were taken out of workshops for 1-1 or group interventions and therefore missed out on the learning.

Conclusions and recommendations

The healthy sustainable eating campaign day was a great success, as all pupils listed it as one of their favourite parts of the intervention. This may have been due, in part, to the involvement and enthusiasm of teachers, parents and kitchen staff who all helped at the event, as well as the coproduction model where schools choose the topic of their campaign days. Furthermore, in the post-intervention survey, a very high percentage of pupils answered the healthy and sustainable eating questions correctly, highlighting that pupils' knowledge in this area had improved. Pupil knowledge of both food waste recycling and prevention also increased following the workshops, although correct responses for the food waste recycling question did improve, they remained below the average for all TRiFOCAL schools. In addition, the percentage of pupils commenting on changing food waste recycling behaviours following the workshops was also lower than average.

The cascade efforts of the school were exceptional with permanent infrastructure changes made following the intervention, including the setup of a community fridge to reduce food waste. The campaign messages were also spread to wider members of the community: workshops were delivered by school teachers to other Year 5 students, further spreading the messages within the school; local media provided coverage of the campaign day to help disseminate the messages to wider members of the community; and cookery workshops were run to spread the messages to parents. Most parents who attended the workshops

reported that as a result they were more confident in preventing and recycling food waste and choosing/preparing healthy and sustainable food.

It is evident that Dorchester's whole-school approach appeared successful in engaging the wider community with the campaign. This success likely benefitted from the enthusiasm of the individuals involved. Future projects should be conscious to engage the wider community with the intervention and campaign day. Such engagement can help establish wider investment in the project, helping it meet its objectives. In the case of Dorchester for example, the intervention has helped build links with local shops who have agreed to contribute to the community fridge, forming a relationship which will hopefully continue to strengthen in the future. The intervention has also encouraged the catering company to work towards longer term food waste prevention on the school site.