



STATEMENT OF THE PROBLEM

Recently there has been a warning about the high fat content of foods in school students' lunch boxes. We want to investigate the fat content in our Grade 5 and 6 students' lunch boxes. We also have a litter problem at the school and want to investigate what is the main source of litter in the school.

FATTY FOODS – THE STORY

The Planning Stage

Information was gathered from the New South Wales Canteen Association on what students are eating and what they should be eating. The fat content in food was calculated and given a rating for foods that can be eaten freely, food that should be eaten in moderation or food that should be avoided. From this information students' in Grade 5 and 6 decided that they would analyse the contents of their lunch boxes three times a week over a three week period and rate the litter they were creating by looking at what their lunches were wrapped in.

Doing the Task

It was decided to devise a scheme that could be used to give the contents of students' lunch boxes a rating in two categories: a fat content rating and a disposable litter rating.

Students' analysed the fat content of their lunch boxes using a sticker system. Three coloured stickers were used to denote, low, medium and high fat content using green for low, amber for medium and red for high.

The ease of which an item could be disposed of was given a number rating. Zero was assigned to litter that was easily compressed and decomposable, 1 was assigned to litter that was '2 dimensional' (that is, could be crushed flat) and relatively decomposable, and 2 was assigned to litter that was 3 dimensional and would take a long time to decompose. These numbers were written on the coloured stickers and then placed on a class wall chart.

Authentic Task – Fatty Foods

Students' rated the contents of their lunch boxes three times a week to collect data for analysis. A banana, for example would be given a green sticker and assigned zero. Where as, a tub of yoghurt would be given an amber sticker and assigned a 2, because the packaging would not crush easily or decompose quickly. A packet of potato chips would be given a red sticker with a number rating of 1.

Students analysed the data according to class groups and compared results to find out which class ate more healthy foods and had less of a litter problem. Data was analysed by gender and it was found that girls ate more healthy foods than boys. In particular it was found that Grade 6 girls were the healthiest, eating more green category foods than red. It was suggested that boys should try and eat less red category foods and increase their intake of green and amber foods. Girls although eating more green category foods than boys did have a high intake of amber foods and this would be something they would need to watch. Analysis was done using computer generated graphs as well as student produced graphs.

When the data was analysed by comparing food categories to litter production, it was found that red category foods had a higher litter count. It was suggested that this might be to encourage people to buy this food for quick and easy access and the ability to advertise on the packaging was an added incentive to buy the product. Green category foods had little packaging but it was noted that sometimes even fruit was wrapped in plastic wrap. To reduce litter it was suggested that fruit not be wrapped at all. One student calculated the ratios between number of stickers and litter count for each of the colour categories, finding the ratio of food to litter for red was 1:1.6, for amber the ratio was 1:1 and for green the ratio was 7:1. He concluded that not only from a health perspective but also from a litter perspective green category foods were better.

Another phenomenon that was noticed by students was that healthy eating habits dropped off in the third week, they concluded they were probably getting tired of the activity by this stage.

After the Task

The students presented their results to the school in the form of a "Student News" video called "Not Enough Twine" where students took the role of reporters, interviewers, experts and commentators.



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