

Project Work Written Report:

Project Green Eating -
Group 4-084

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ABSTRACT

Project Green Eating is a project which aims to encourage people to eat green and make our environment more sustainable. We created a website on eating green and an Instagram page, used to promote green eating online. The website houses impacts and benefits of green eating, how people can eat more sustainably, recipes for dishes that let people eat green and a self-made video. We have incorporated other multimedia for more interactivity, such as, our Instagram page which reaches out to social media users, spreading light-hearted information.

1. Introduction

1.1. Background Information

Green eating refers to shifting meat away and adding plant-based foods into the center of our meals. People's meals usually contain more animal-based products and these damages the environment and our health. Thus, by eating green, the harm will be reduced significantly.

1.2. Rationale

In an article published by *The Straits Times*, we found that Singaporeans ate 3 to 5 times more meat and eggs than is environmentally sustainable. Large amounts of resources were required to produce that much food, leading to climate change. We realised that encouraging others to eat green was important and thus initiated this project.

1.3. Target Audience

Our target audience was secondary school students.

1.4. Objective

Our objective was to convey the health benefits and environmental impacts of green eating and encourage our audience to eat green. Ways they could eat green were provided, allowing them to practice green eating in their lives, improving the project's effectiveness.

1.5. End-User Products

The products created included a website with information on environmental and health impacts and benefits, meat alternatives, ethically-raised foods, green recipes, a self-made video on green eating benefits and places serving green food. An Instagram page including fun facts and expository knowledge was also created.

2. Literature Review

2.1. Environmental Impacts

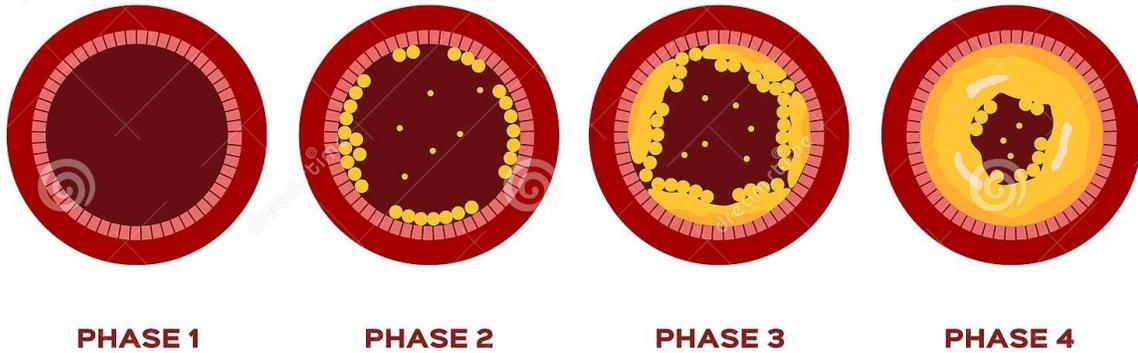
In 2017, on average, each Singaporean ate 2kg of beef, 3kg of mutton and 20kg of pork, about 5 times the recommended amount in a diet that helps to counter climate change. Due to the large intake of meat, land use in production for meat, water and crops for livestock will have a large increase, leading to an increased need in transportation of meat to people. This then increases greenhouse gas emissions from factories, transportation vehicles and clearing of land, thus causing a reduction in plants photosynthesizing. Overall, this will cause the environment to be more unsustainable through global warming and deforestation for land space.

2.2. Health Impacts

Meat consumption has 3 main health impacts: lack of nutrition, increased heart disease risk and excess carbon intake. When meat is consumed, a small percentage of nutrients from crops animals eat gets consumed. For cows, only 4% of the protein and 3% of the calories of plants that they are fed gets consumed. Furthermore, animal products use up food that we could nourish 3.5 billion more people if we ate animal feed. However, these account for only 18% of the calories that we consume on a daily basis.

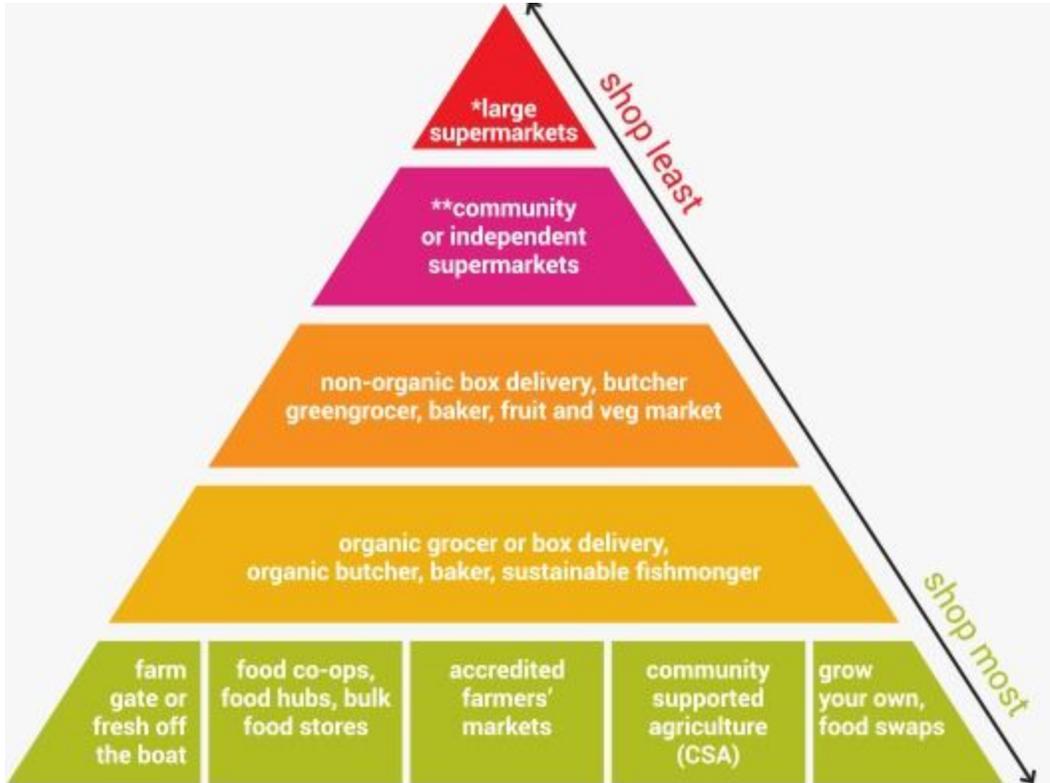
Secondly, processed red meat refers to any form of meat that has undergone various methods to be preserved. According to the European Prospective Investigation into Cancer and Nutrition, meats are high in saturated fat, raising blood cholesterol when consumed. High levels of low-density lipoprotein cholesterol then block your arteries which carry oxygen-rich blood, causing atherosclerosis. Over time, the cholesterol hardens and narrows the arteries, causing heart attacks and strokes to occur. Finally, high meat consumption will lead to an overall increase in carbon dioxide levels globally. By inhaling more carbon dioxide, carbon dioxide levels become excessive, causing respiratory acidosis to occur. This makes the pH of blood and other fluids fall below 7.35. Breathing rate and blood pressure then increases, causing your brain and spinal cord to be overwhelmed before dying.

Atherosclerosis



2.3. Ethically-Raised & Responsibly-Grown Foods

Eating green includes eating ethically-raised foods. Some farmers use resources that disrupt ecosystems, such as artificial fertilisers causing eutrophication. By picking ethically-raised foods, we can allow our planet to be more sustainable. For animal-based products, one can look for organic, grass-fed, free-range, antibiotic-and-hormone-free and Seafood Watch labels. For plant-based products, look for organic, fair trade and local labels.



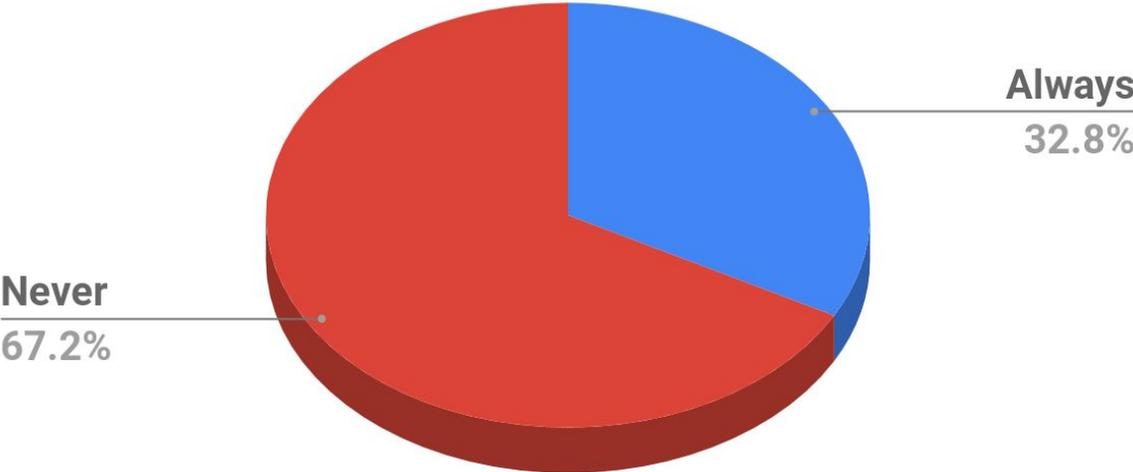
3. Methodology

3.1. Needs Analysis

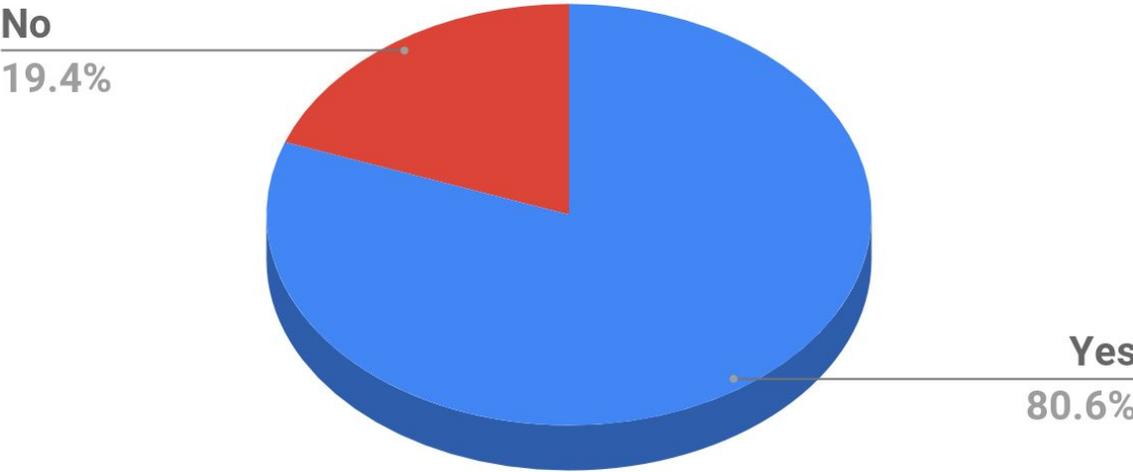
To ascertain the relevance of our project, we have conducted a needs analysis utilising Google Forms and have obtained 68 responses from secondary students. From the survey, we found that 67.2% of students did not eat vegetables consciously for personal health benefits. 80.6% of the students wanted to know more about green eating, affirming our project's relevance. For the resources to be made, students wanted a self-made video most, followed by a website, a lesson package and a board game.

3.1.1. Survey Results

Number of students who eat less meat and more vegetables

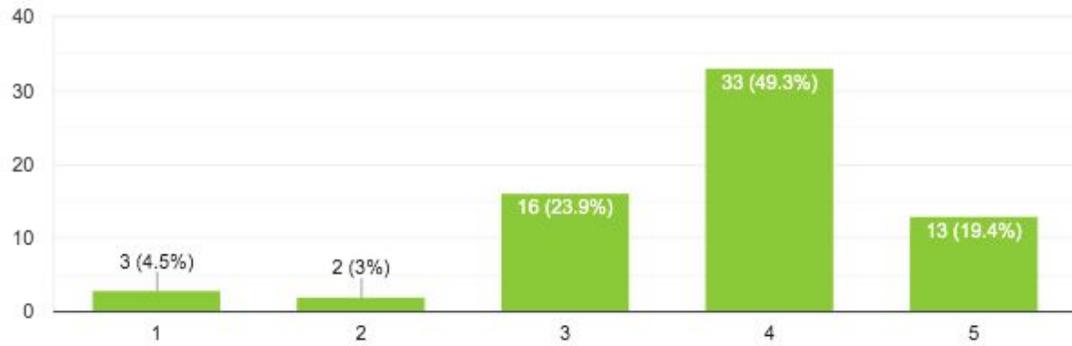


Would you be interested in learning more about Green Eating?



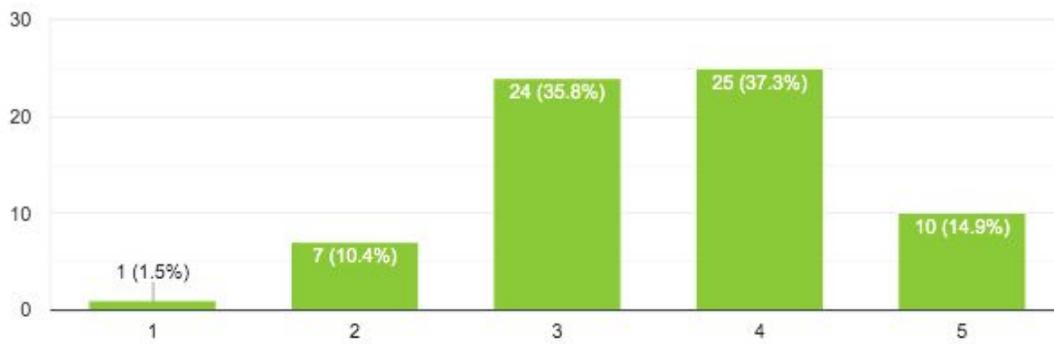
Self-made Video

67 responses



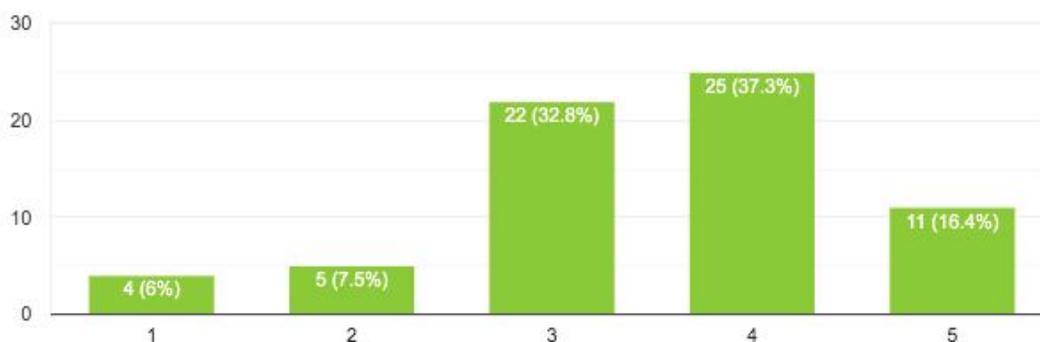
Website

67 responses



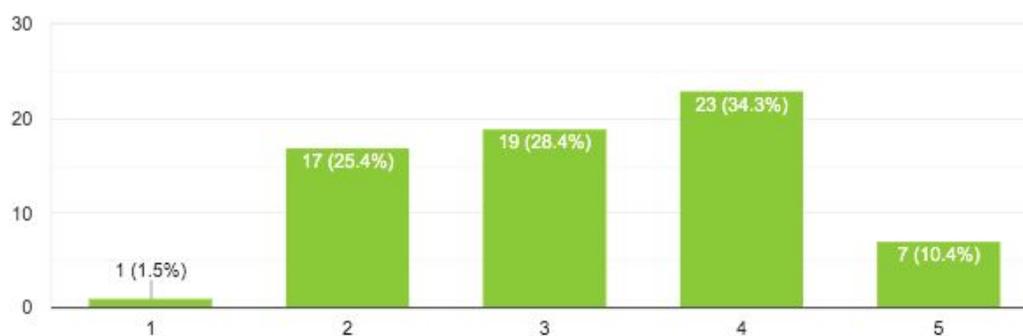
Lesson Package (with information and teachings provided, before a short quiz)

67 responses



Board Game(s)

67 responses



3.2. Website

We have utilised Google Sites as our main platform in providing information to the general secondary school population. The website acts as our main basis to transfer multiple pieces of information and emphasises the objective of our project. The link to it is here:

<https://sites.google.com/student.hci.edu.sg/project-green-eating/>

3.2.1. Recipes

Alongside the contextual information on the website, we also included recipes, providing a basis for one to try out different creations and appreciate green foods, incorporating them into one's daily life.

3.2.2. Self-Made Video

Coupled with the website, the video provides another platform to extend our reach to the audience. It was created to provide a better visual representation of the benefits of our project, garnering attention and reaching a wider audience. The video was also added in our website to increase its viewership.

3.2.3. Meat Alternatives and Places to Find Green Food

Finally, to complete our website, meat alternatives were provided to supply our audience with substitutes for their meaty diet without compromising taste and nutrition. Restaurants serving green foods have also been provided, for instance, Greendot, which has been rising in popularity and revenue. By providing the addresses of such places, we can enable those without enough time to cook to eat green too. For example, food chains like Impossible Burger and VeganBurg aim to provide the public with 100% plant-based burgers which taste similar to normal burgers.

3.2.4. Quiz

Lastly, we used Google Forms to create a quiz, helping to consolidate and let the audience review information in the website. It also wraps up our website.

3.3. Instagram

An Instagram account with the username “@Project_Green_Eating” was created. Instagram is a very popular social media app with frequent usage amongst secondary school students. As such, our project would be able to extend our reach to more audience. On our account, we provided multiple fun facts and bits of information

regarding green eating biweekly to promote and raise awareness of the topic, thus ultimately achieving our goal of raising awareness to our audience. The link to it is here:

https://www.instagram.com/project_green_eating/

3.4. Pilot Test

Through the pilot test, we obtained multiple suggestions for our website and Instagram page from 38 responses. After reviewing them, we decided to add the green quiz to consolidate all the information in the website and add more interactivity. More recipes were also added, including personally-home cooked ones and gave suggestions on how to start eating green gradually. We also created less lengthy Instagram posts, increasing the likelihood of one looking through the entire post.

3.4.1. Pilot Testing Results

Pilot Testing Results - Comments on Website

“Nil, maybe a fun quiz on the website or fun facts cos a bit wordy and boring”

“it needs much more recipes”

“Suggestion could be provided to start eating green slowly. i.e.: promote eating green for 1 day every week for 1 month, then 2 days every week for the next month. Or encourage eating green as a group.”

Pilot Testing Results - Comments on Instagram

“Some of the posts are a bit too wordy”

“Too much content, not suitable for
instagram jus swipe thru”

4. Outcome & Discussion

4.1. Outcome

Overall, we stuck to our original plan and created a website and Instagram page, the former encompassing information regarding environmental and health impacts and benefits, meat alternatives, ethically-raised foods, recipes and restaurants selling green food, the latter comprising of 10 posts containing fun facts and information about green eating. The pilot test contained suggestions ranging from increasing the font size of Instagram posts to making our website more interactive. Thus, we added a consolidatory quiz and a self-made video on our website.

4.2. Limitations and Possible Extensions

Due to time constraints, we could not post on Instagram weekly. Also, due to the lack of information on green eating, we had to research the environmental and health

aspects separately. Hence, we could not link all the individual impacts of green eating and obtain reliable information to estimate the overall benefit. Possible extensions for our project included videos showcasing recipes compiled, green food reviews, ethically-raised foods and producing applications that moderate meat consumption.

5. Conclusion

During the project, we faced setbacks like time constraints, lack of research sources and difficulty in resource creation. We have acquired skills of effective teamwork and communication. In addition, schoolwork was heavy and hence, we learnt perseverance and time management. We also learned how to effectively present in front of an audience and applied our creativity to find multiple methods to promote green eating.

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