

CATEGORY 4 RESOURCE DEVELOPMENT

Group ID 4-077

PROJECT ZERO

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ABSTRACT

With food wastage being a pressing concern in Singapore, Project Zer0 provides a comprehensive and appealing package of resources to help teenagers learn about food waste in Singapore. With social media gradually becoming the new medium for communication and the broadcast of information, we created a Project Zer0 instagram page where we post interesting and eye-catching blogs, ideally every week. To spread even more awareness online, we also created a website, where it features appealing blogs, quizzes and most importantly a map that compiles of every place that they can donate food at, as well as what they accept, so as to bring convenience to those that want to do so(we will talk more about this decision in the “**3.2 Development of Resources**” “**2 REVIEW**” sections of this report).

From this project, we hope that young teens will take something away from it, and will have the habit of making full use of their food waste, as the future of society. We also hope that we are influential enough to cause awareness and change in view towards what people might think are “ugly foods” and help out with this severe issue of food wastage. Again, hopefully we are able to accomplish these goals and leave a lasting change on the issue of food wastage in Singapore.

1 INTRODUCTION

1.1 Rationale

The definition of food waste is as so, “The discarding or alternative (non-food) use of food that is safe and nutritious for human consumption.” Food waste is a very big problem in Singapore as with 10% of the total waste in Singapore being food waste, and only about 18% of the food waste is recycled, leaving the other 72% of it to be disposed of for incineration then thrown into landfills. When the amount of food waste increases, this will put pressure on our resources. We will be forced to build more waste disposal facilities, such as waste-to-energy plants and landfills for incineration of ash. This is

definitely not sustainable for land-scarce Singapore.

In addition to this, statistics have shown how the food waste in Singapore has generally been increasing. In 2019 alone, Singapore generated around 744 million kg of food waste, equivalent to 2 bowls of rice per person per day, or around 51,000 double decker buses, which makes the issue of food wastage in Singapore more relevant than ever.

1.2 Objectives

The objectives of Project Zer0 are to

- spread awareness on the issue of food wastage in Singapore
- introduce as well as spread awareness on some solutions they can use to reduce food waste in Singapore
- encourage the young generation to recycle their food waste
 - thus promoting food recycling centres as well as the new discovery of community fridges

1.3 Target Audience

The target audience was most of the younger generation under 35, as a research programme WRAP(Waste & Resources Action Programme) shows that this age group typically generates the most amount of avoidable food waste, having nearly 50% more of such waste than any other age group, for example, those aged 65 and above.

These people are also more tech savvy and usually have much greater access to our

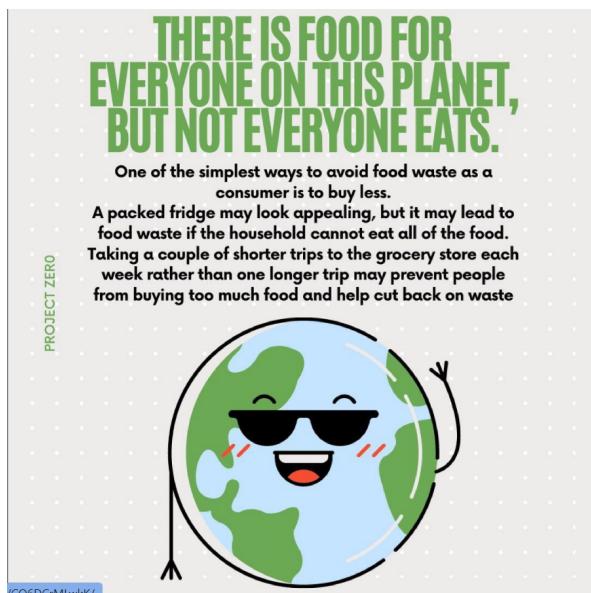
online resources, in sight of this pandemic, maybe as compared to those too young to own a phone.

1.4 Resources

The resources created for this project were:

- 1) Project Zero Instagram Page

- a) Blogs



- b) Solutions and ways to reduce food waste

A screenshot of the Project Zero Instagram feed. It includes several posts:

- A post titled "INCLUDING, THE RETAIL LEVEL." featuring a map and text about how the website can help.
- A post titled "What's more? It saves you time and money." showing a food bank collection point.
- A post titled "STOP FOOD WASTAGE" featuring the same cartoon Earth from the first post.
- A post titled "WHAT HAPPENS TO FOOD YOU GIVE TO FOOD RECYCLING PLACES" with a note about ugly fruits.
- A post titled "FROM THE PROJECT ZERO GOATS" with a video thumbnail for a 5-step application guide.

2) Project Zer0 website

a) Different and more “wordy” blogs on similar topics

The screenshot shows a blog post titled "We are all aware that Singapore is a small island, but when we are not conscious of the food that we waste everyday, this will eventually be devastating to the future of our society." The post discusses the impact of food waste on the environment and the importance of sustainable waste management. It includes a quote at the bottom: "Whatever you want to do, do it now! There are only so many tomorrows."

b) Map featuring locations of food recycling facilities and community fridges for convenient donation of food waste

The screenshot shows a map of Singapore with various locations marked for food recycling centers (FRCs) and community fridges (CFs). A callout box provides details about a specific facility: "Lam Tuk Pte. Ltd. They accept dried food waste, milk powder, other raw materials, by-products, packaging materials, directions". The map also shows the locations of Sentosa, Marina Bay, and other parts of the city.

c) Pledge to reduce food waste (a.k.a. Challenge to reduce food waste for a week)

The screenshot shows a section titled "I PLEDGE TO REDUCE THE AMOUNT OF FOOD I WASTE FOR A WHOLE MONTH". It features a large red X over a photograph of a mountain range. A callout box says: "P.S. click on the middle of these two crosses for some advice on how to do so". Below this, a text box states: "NOT ONLY ARE YOU REDUCING WASTE IN GENERAL, LESS FOOD WASTE MEANS MORE FOOD FOR OTHER STARVING COMMUNITIES AROUND THE WORLD". At the bottom, there is a call to action: "Commit to reducing the food you waste!" followed by input fields for Name and Email, and a "Subscribe" button.

- d) Quizzes that test on facts or statistics that are written about in our blogs, thus also testing on their understanding of the blogs



1)Project Zer0 Instagram Page -

https://www.instagram.com/project_zero/

2) Project Sugar Rush Website -

<https://projectzer0.wixsite.com/project-zer0>

2 REVIEW

Current resources like [NEA's website](#) and its content did not target the younger generation and thus were not useful in helping them learn about proper food waste management. In addition, the sections on food waste management featured lengthy and hard to read content. The NEA website which contained the only list that I could find of food recycling facilities in Singapore, did not even provide locations of such facilities, but rather just the names of the company. Some facilities that have already been closed permanently(e.g. Agriprotein Singapore Pte Ltd), are still up on the website, with no indication of whether it still exists. As a result we conducted needs analysis next, and added in the additional question of whether they had recycled at food recycling facilities before, as we came up with the hypothesis on how the difficulty of actually finding such

places has contributed to the amount of people that actually go out to donate food. Although the donation of food waste is one solution alone, our team felt that the hassle to find places to donate to was extremely worrying, and thus decided to tackle this and spread awareness on it. Other websites that offered blogs, such as the [Sustainable Food Trust](#) website simply had blogs that would not appeal to our target audience at all. The blogs were simply too wordy, and although they provided ample and useful information, we doubt many of our target audience would want to read through the whole blog, unless one was seriously engrossed on the topic of food waste.

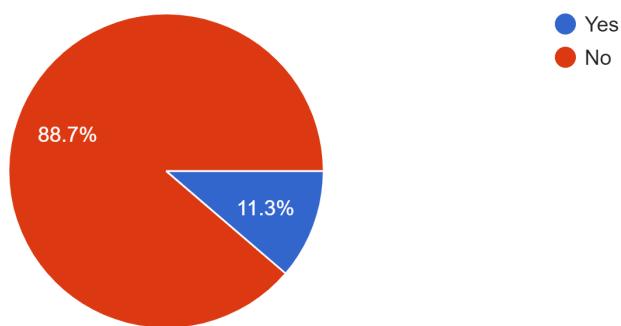
3 METHODOLOGY

3.1 Needs Analysis

A survey was conducted to find out more about our target audiences' mindset and thoughts towards food waste, in addition to questions on food recycling facilities previously discussed.

Have you ever recycled your food waste at a food recycling centre?

62 responses



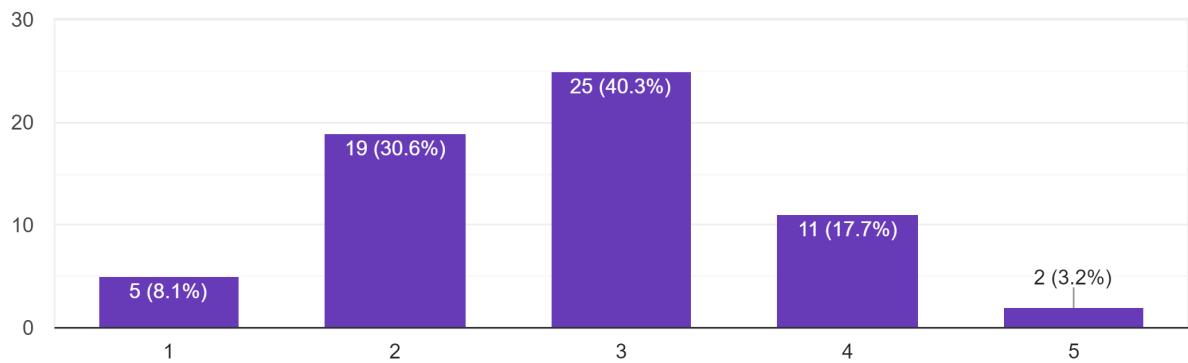
If your answer to that question was no, why so?

62 responses



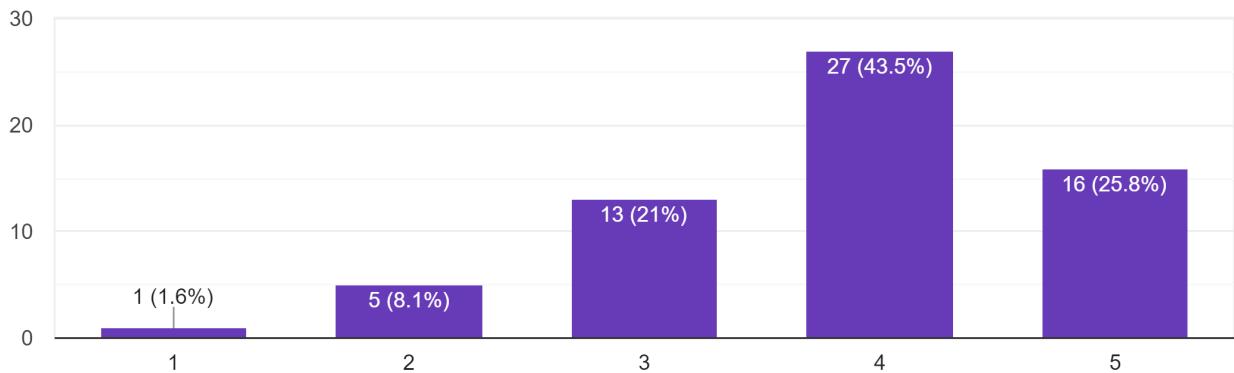
On a scale of 1-5, how severe do you think the food wastage is in Singapore?

62 responses



On a scale of 1-5, how much would you actually want to help out in this situation?

62 responses



After the data above was collected, we then analysed what the target audience would need and based a part of our resources to target them. So from the statistics, we can actually tell that many people wish and are willing to help out with food wastage in Singapore, but most did not know about the locations of food recycling centres that they could help out at. As a result, we created a website, featuring a map which plots all the points of food recycling centres that we could help out at, which will definitely bring more convenience to them and encourage them to recycle their food waste.

Furthermore, we could also see that many people didn't really think that food wastage was a big issue in Singapore, and thus we decided to create an instagram page along with a website posting blogs, to spread more awareness on why it is actually a big problem, simultaneously encouraging our target audience to recycle their food waste.

3.2 Development of Resources

Extensive research was conducted through readings of various online resources to determine how we shaped our resources to pick up on areas that these websites lacked.

After gathering information and analysing data provided in the needs analysis process in "**3.1 Needs Analysis**", we also designed the resources based on responses given by our target audience. For example, from the survey, we could tell that quite a number of people did not know where food recycling places were, and that was a very big reason for why they haven't really donated to food recycling centres before. As a result, we made a map featuring locations of food recycling facilities for convenient donation of food waste, mainly because of what we had previously discussed in the "**2 REVIEW**" section. While researching on the topic of food waste, we also came across the topic of community fridges and realised that it essentially ran through the same donation process as food recycling facilities. As a result, we added in the locations of community fridges into the existing map, where it provided more locations for the user to choose from, as well as a larger range of places that would be near to a user. As we wanted to create more content to make our website more interactive and user friendly, we also created new sections like a "Queries" section on our website, where people could key in their questions about food waste or the project and we could directly reach back to them and answer their questions.

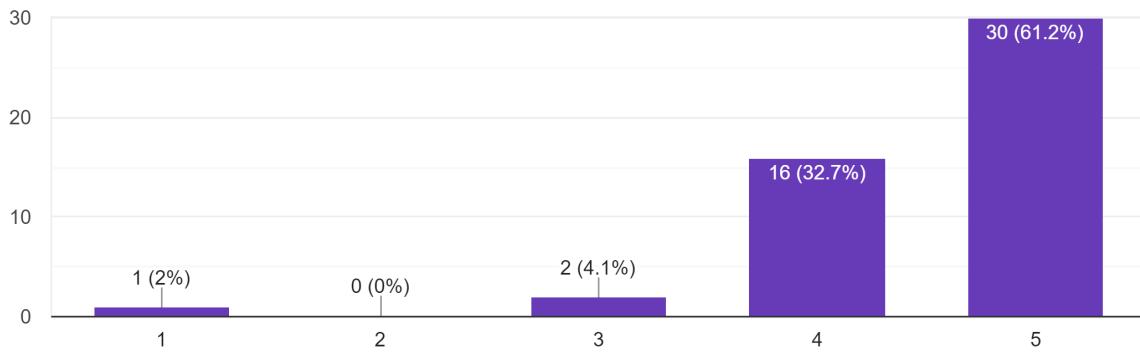
3.3 Pilot Test + Feedback

In our pilot test, we mainly carried this out through getting feedback from users on our resources. As of now, we have 136 site visitors, with on average 95 viewers on each of our blogs. On our instagram page, we have almost 70 followers, as well as on average 18 likes on each of our blogs. We then made a feedback survey, posted on our webpages, to get some of our target audience's opinions on whether our resources were of help or use. We also asked some of our friends who were closer to us and also fit into our target audience to review our resources so that we had more accurate readings and feedback on our website to improve further on it.

FEEDBACK FROM SURVEY

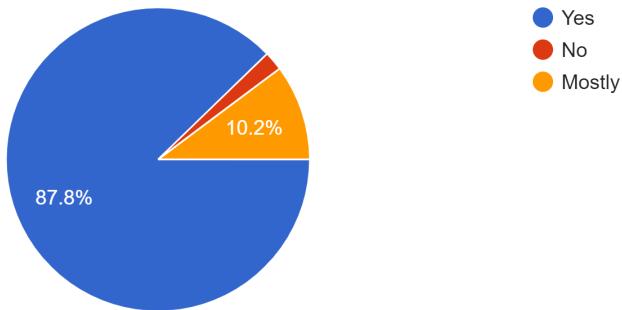
Did u find out website informative?

49 responses



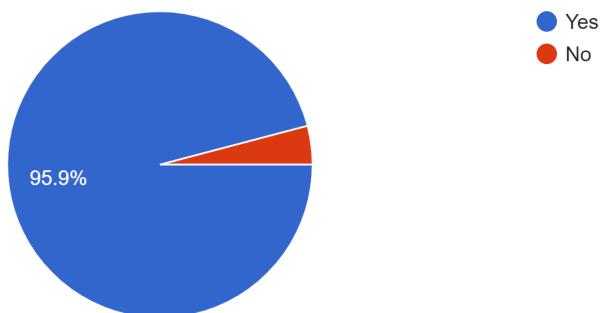
Did our website and the posts on our Instagram help you to understand the situation of food waste in Singapore?

49 responses



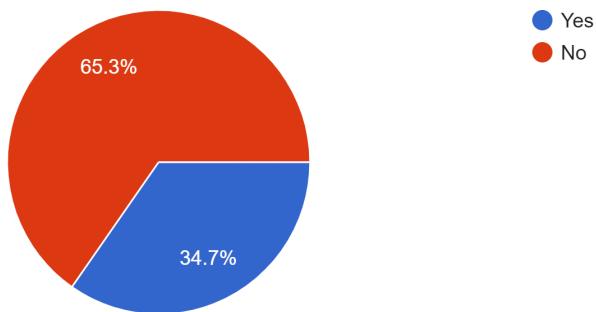
Did you find the map in our website useful? (e.g. is it convenient,)

49 responses



Have you donated your food to a community fridge or food recycling centre?

49 responses



In your opinion what areas of improvement should we make in order to make our project more appealing to you as well as attract you guys to stop food waste!

49 responses

nothing much, everything's great ;)

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nothing much

Nope

Everything's fine

NA.

Nothing much

Too much info / wording within one post. One single messaging always help. Remember less is more when comes to presenting messaging in social media.

Nil

FEEDBACK FROM FRIENDS(picture of messages not shown for privacy reasons)

“The website is pretty decent and I like the variety in the blogs on your IG page”

“Blogs on both pages are quite eye-catching, and info inside is also useful!”

“I really like the designs on the Instagram Page.”

“I like that the Project Zer0 team also has a weekly schedule of posting!”

“Everything’s great”

“I enjoyed doing the quizzes on your website!”

“I have learnt a lot on food waste from Project Zer0”

“Website looks attractive and I’ve learnt a lot!”

“Keep it up!”

4 OUTCOME & DISCUSSION

As can be seen from the feedback, we generally received positive feedback with many people claiming that our resources did not need anymore improving. However, there was still one feedback that some of our posts still contained too much info, where we have made an effort to keep our posts shorter and sweeter. In addition, we also managed to more than double the amount of people that had donated food at food recycling centres or community fridges. By our own terms, this was a huge accomplishment that showed the fruits of our labour had really paid off. Nevertheless, we still decided to make more improvements to our website that we did not originally have, such as a simple pledge (as shown in **1.4 Resources**) that will help motivate our target audience to start reducing their food waste. As of now, we have received about 8 pledges, which comes with an automated reply of a poster to thank them, as it was quite a recent idea that we came up with. Generally, we also tried our best to improve the aesthetics of our blogs on both the Instagram page and the website, thus making it look more appealing to our viewers. In addition to this, we also started a mini-series called “Did You Know?”, where we would share and talk about some interesting places that worked with food waste. For example, we shared about Food Bank Singapore, which are basically bins placed in supermarkets or petrol stations that let you put in food to be composted. This helped to engage our viewers, and this is evident as it was one of the most liked posts on the page.

5 CONCLUSION

Project Zer0 was definitely a difficult project to partake in. When one of our project

members suggested doing a project on food waste, all of us were aware that it would not be easy to tackle such a widespread and common problem. However, we were still determined to go through with it. Not only did we have to go through extensive research, COVID 19 had also hindered and cancelled some of our meetings with our mentor, though we quickly adapted to a more online format through the app Zoom. Nonetheless, it is without a doubt that this journey was an enriching one as well. We learnt countless traits, like teamwork and perseverance, as well as useful skills such as time management. In addition, we also had to be creative, constantly thinking of new ideas and content to be delivered to our viewers and followers, as well as the formats and themes they were delivered in, such that we would never disappoint them when they see a new post up. In the end, we can all say that it was clearly quite delightful to see that we had managed to actually make an impact on food waste in Singapore, spreading more awareness around the country. After seeing such great reviews and feedback, we all felt that we had finally accomplished our desired outcomes.

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Images

Photographs taken by Lucas Tey Jing Heng