

ABSTRACT

Project Nutrifood is a project that aims to raise awareness of how students in HCI can better manage their eating habits, through providing directed solutions that HCI students can easily implement in their day to day life. Our resource package consists of a diverse range of materials that students can use to learn more about healthy eating as well as how they can apply these to their daily life. The resource package includes a Instagram page where we regularly post trivia regarding healthy eating to pique the interests of students, a blog whereby we suggest some implementations of healthy eating students can make in their daily lives, simple, healthy cooking videos whereby HCI students can try out, and also a wix site, where all of the resources can be easily accessed.

1) INTRODUCTION

1.1 Rationale

Many students nowadays are not aware of the importance of a healthy diet on their overall wellbeing, and thus, do not pay much attention to the food they consume, simply because they do not see the importance of a healthy diet in their lives. As such, our project aims to plug that hole by educating students on the importance of healthy eating as well as providing a wealth of resources for students to easily monitor their eating habits, as well as start making healthy eating a lifestyle.

1.2 Objectives

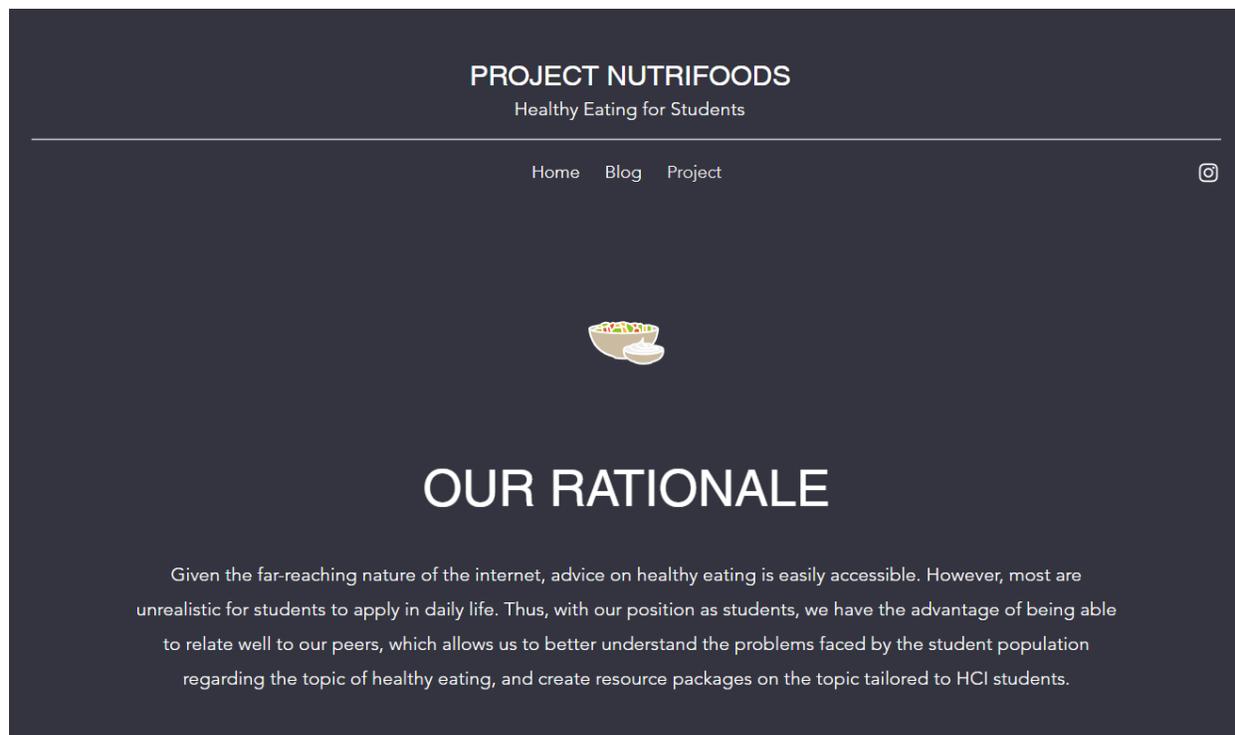
This project aims to raise awareness of how students in HCI can better manage their eating habits, through providing directed solutions that HCI students can easily implement in their day to day life.

1.3 Target Audience

Given the far-reaching nature of the internet, advice on healthy eating is easily accessible. However, most are unrealistic for students to apply in daily life. Thus, given our position as students, we have the advantage of being able to relate well to our peers, which allows us to better understand the problems faced by the student population regarding the topic of healthy eating, and create resource packages on the topic tailored to HCI students.

1.4 Resources

We have curated a variety of resources to cater to the needs of HCI students, including an Instagram page that posts weekly trivia to interest students on the topic of healthy eating as well as educate them on some fun facts, a set of videos that include healthy recipes that they can try out, a website that will include a blog where we have written some articles for the student's consumption, and a place where all our resources can be found at one place, and lastly, a proposal to the canteen vendors of our school to suggest that for every store, healthier options be marked out or even the caloric intake of certain foods. In other food courts like the one in Our Tampines Hub, on the board of every store, there is a healthier choice option, and we believe that the presence of such information will allow for students to make better choices regarding their food intake, and will pave the way for students to engage in healthier eating habits.



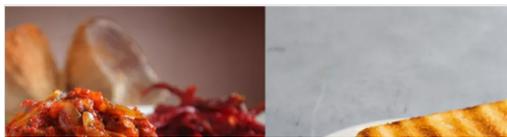


Project Nutrifoods 
Jun 27 · 2 min

3 Tips on Spotting Healthy Foods

As the public grows increasingly aware of the impacts of their eating habits, a greater and greater emphasis has been put on healthy...

4 views 0 comments



Project Nutrifoods 
Jun 21 · 2 min

3 Tips to help make healthy eating a



project_nutrifoods Message   

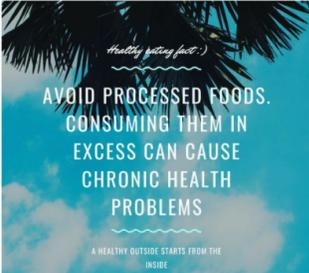
6 posts 30 followers 67 following

Project NutriFoods 

hey there, we're a group of hci students here to promote healthy eating, with fun facts guaranteed to change your mindset when choosing your meals!! 🍌🥗

Followed by bak.chormee, servoergotvcm, and jxng_kxi

POSTS TAGGED



2) REVIEW

2.1 Literature Review

Healthy eating from a young age is extremely important as it protects one against many chronic noncommunicable diseases, such as heart disease, diabetes and cancer. Eating a variety of foods and consuming less salt, sugars and saturated and industrially-produced trans-fats are essential for a healthy diet. In Singapore, with our aging population, maintaining the health of the older population is a great challenge faced by the government. During the 2016 Committee

of Supply debates in Parliament, Health Minister Gan Kim Yong revealed that over 400,000 people have diabetes in Singapore. Of these, one in three is not aware he/she has the disease, and of the rest who do know, one in three has poor control of it. If left unchecked, nearly one million people in Singapore will have diabetes by 2050.

2.1.1 Diabetes

Diabetes can be seen as one of the main health problems faced by Singapore. It is split into 2 types of diabetes. Type 1 is where the body produces little or no insulin, and Type 2 is where the body develops a resistance to insulin and is unable to use it properly. Type 2 diabetes is often caused by poor diet and sedentary lifestyle. Researchers from the NHG Health Services & Outcomes Research department studied more than 22,000 patients from TTSH and NHG Polyclinics over a 10-year period. Type 2 diabetes is seen to be reaching epidemic proportions; not only in Singapore but also globally, and epidemics are seldom controlled until their cause is addressed (Pinkney, 2002). Obesity has been identified to be the main cause of Type 2 diabetes and the most common definition of obesity is a body mass index greater than 30 kg/m².

2.1.2 Prevention of obesity

From the previous section, obesity has been identified by many studies done as the main cause of diabetes. Obesity is also the main result of unhealthy eating and is often associated with poorer mental health outcomes and reduced quality of life. Obesity is also associated with the leading causes of death worldwide, including heart disease, stroke, and some types of cancer. It has been defined as a "clinical presentation characterized by excessive fatness" (Committee on Nutrition of the Mother and Preschool Child 1978, p.125), but there is no consensus as to how excessive fatness should be measured or defined. The focus on tackling obesity should be on getting to the root of the problem, not on weight reduction programmes when the damage is already done. As such, proper nutrition is the key to good health. Nutrition refers to the process which begins with eating food, followed by digestion and absorption of food until its nutrients are distributed throughout the body for growth, development and overall well-being (Wishon et al, 1983). Most nutritionists recommend that complex carbohydrates make up 50% to 60% of a teenager's caloric intake. Simple carbs, on the other hand, seduce us with their sweet taste and a brief burst of energy but have little else to offer and should be minimized in the diet.

2.2 Existing Resources

There are resources available on Youtube and Instagram accounts that can provide a comprehensive understanding of healthy eating and healthy eating recipes. However, it is not tailored to the needs of us students. Our resource will incorporate personal experiences in school and as an athlete so as to cater directly to students in our school.

3) METHODOLOGY

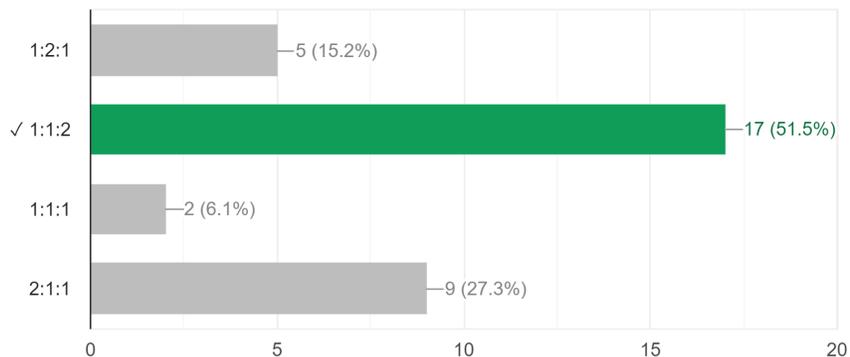
3.1 Needs Analysis

As shown by the literature review, there is definitely a need for such resources in the general adolescent/student population, but is there any concrete evidence that there is such a need amongst HCI students, our target demographic? To prove that there is, we designed and sent out a short survey inquiring about various topics centered around healthy eating, such as their mindfulness of eating habits or whether they had common knowledge on the issue. Afterwards, we collated the results, and they indeed showed a lack of healthy eating practices amongst HCI students, and hence a need for our resources.

3.2 Survey Results

What is the recommended intake ratio of carbohydrates, proteins and vegetables? (In that order)

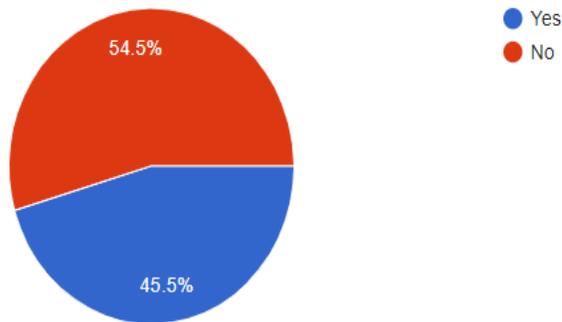
17 / 33 correct responses



To start off the survey, we posed a simple question to our participants as a small trivia: “What is the recommended intake ratio of carbohydrates, proteins, and vegetables?” We expected an accuracy rate of over 90%, since this was supposedly common knowledge. However, to our disappointment, it had an accuracy rate of barely over 50%. As such, it is obvious that students are not yet knowledgeable enough on the topic of healthy eating, which is crucial for a healthy development during this period of puberty.

Do you pay special attention to make sure that you are eating healthy?

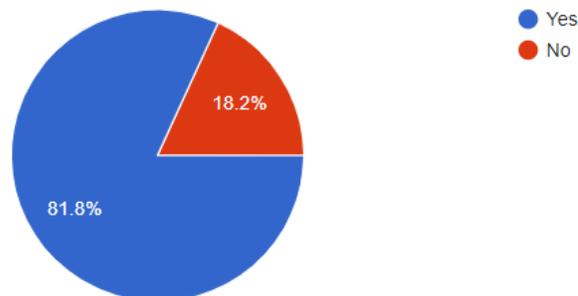
33 responses



Secondly, we asked participants if they paid any special attention to make sure that they are eating healthily, to which the majority (54.5%) of correspondents answered “no”, which shows that students are not mindful enough about their dietary habits at this important stage of body development.

Would you like to see resources tailored to HCI students on how to maintain healthy eating habits?

33 responses



Lastly, we asked participants if they would like to see resources on healthy eating tailored to HCI students, to which an overwhelming majority of 81.8% of the students answered “yes”. This shows that there is a demand for the resources our project aims to provide, and that students will be receptive and our resources will have a greater impact on the HCI student population.

3.3 Development of Resources

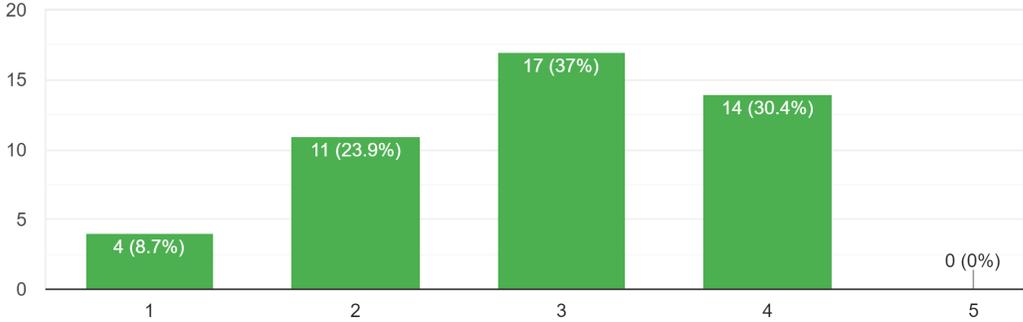
Through this, it is evident that there is neither enough knowledge nor mindfulness regarding healthy eating amongst the student population. So, in response to this, we decided to post biweekly information tidbits on our Instagram account, @project_nutrifoods, that are quick and easy for students to consume in order to spark their interest in healthy eating. We have also

created more long-form content, including blog posts and videos, that can be found on our website, which can serve to further educate those who have seen the Instagram page and wish to educate themselves further on the issue.

4) OUTCOME AND DISCUSSION

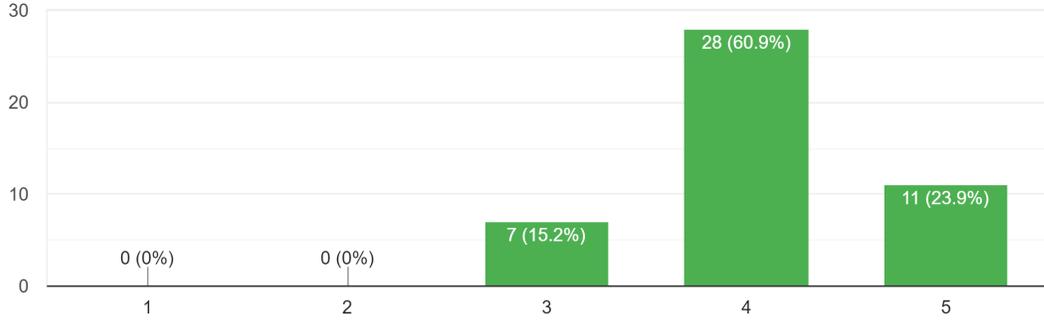
I am knowledgeable on the topic of healthy eating.

46 responses



You are now sufficiently equipped with all the necessary knowledge regarding healthy eating.

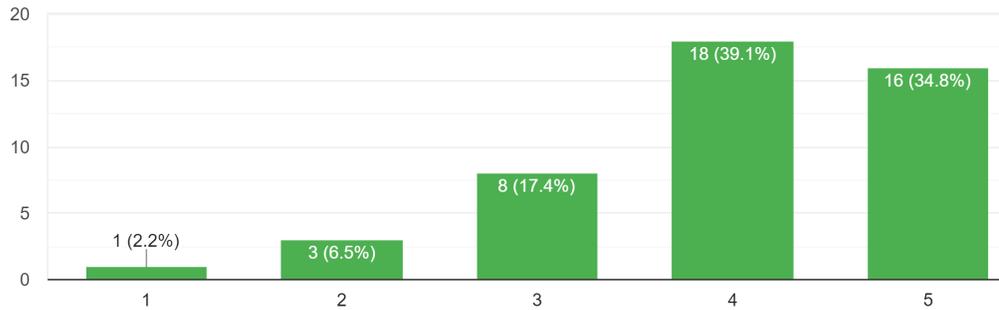
46 responses



From the pilot test, we observed an average score of 4.09. This is in contrast to the initial score of 2.89 that we received during our needs analysis. This demonstrates that our resource benefited and made our respondents more knowledgeable as well as confident regarding their knowledge of healthy eating, through the various resources we rolled out such as the instagram trivia, or the blog posts we did.

Recommended Recipes

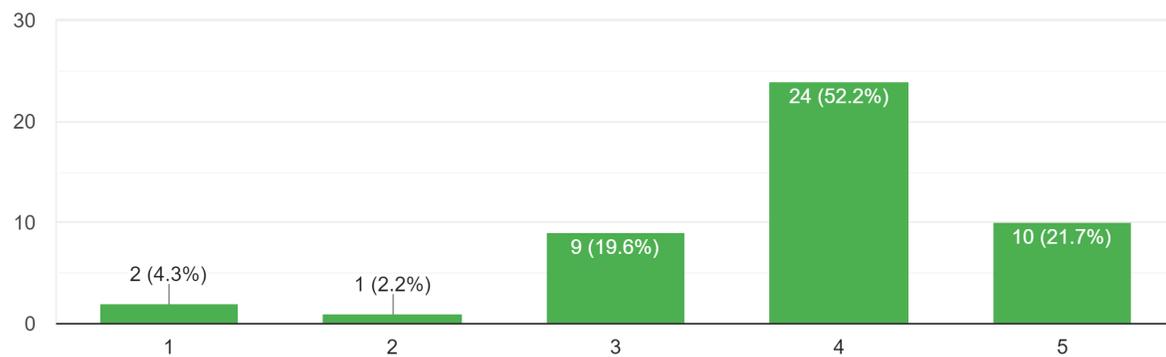
46 responses



Our recommended recipes were the most well-received resources, scoring a high average of 4.00, implying that the student population enjoys more interactive ways of learning about healthy eating.

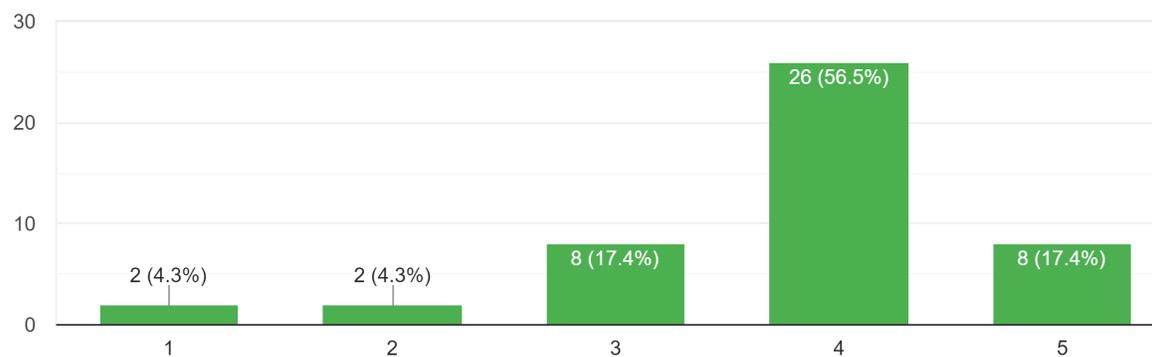
Instagram Page

46 responses



Bite-sized information regarding the calories of common hawker food

46 responses



Both our Instagram page and bite-sized information located in the website also received relatively good feedback, indicating that our users are more likely to read and digest concise information about healthy eating, and having these fun facts would be an effective way of spreading awareness on healthy eating across the student population.



Photo of one of our surveyees reading through our resources

We also gathered some comments on our resource package. Some of the comments and feedback gathered was as follows.

“The resource package and the instagram trivia generated by the project team was informative, and I learnt a lot from it! The website was nicely done up, with clear categorisation of the various sections. However, one thing that could be improved on is the variety of recipes, as they only had around 10 recipes. I think that adding more recipes and more variety will attract more people to try them out!” -Zaccheus Tan, 4i4

“I found the information about the calories of hawker food extremely interesting and insightful, as although these foods are a huge part of our daily life and I consume these foods on a regular basis, I did not realise how many calories they contained. However, I think that some areas for improvement would be in also including the calorie count of the food in the school canteen, as it will make it more applicable to our daily lives.” -Lee Ze Bin, 4P1

Overall, based on the various comments along with the pilot test results, we believe that our resource package has managed to achieve its goal of better equipping Hwa Chong students with knowledge regarding healthy eating, and getting more awareness about the topic. However, we do believe that we have some room for improvement in our resource package that would make it more effective, which will be covered in the limitations section.

4.1 Limitations

With many of our group members having amateur cooking skills, the videos produced were quite basic in nature, resulting in less people intrigued into learning the recipes than we were originally hoping for. Due to the restrictions of the pandemic, we were unable to properly liaise with professionals such as nutritionists and chefs, limiting the insights we have towards healthy eating and the quality of cooking videos created. In addition, due to the limitations created by the pandemic and the short runway that we have, we were unable to liaise with the canteen vendor to suggest our proposal on including nutritional information on the notice board of every canteen stores, however we have still drawn up a short proposal detailing what we would have suggested.

4.2 Improvements and future plans

Based on the initial pilot-tests and surveys conducted, one expansion of the project would be to develop more interactive resources, utilising games and the concept of game-directed learning to further interest users, in return achieving the aim of the project to increase awareness of the importance of healthy eating. We could also collaborate with professionals, as mentioned in the previous section, to produce more informative articles and cooking videos of higher standards. Lastly, a specific feedback we got from an interviewee was that “we could add in other recipes that are easier to make, or even healthy suggestions for on the go breakfast”. This way, it would relate even more to us HCI students, and can further benefit the cause of spreading awareness on healthy eating, across the student population.

5) CONCLUSION

This project has certainly not been smooth sailing, with many ups and downs we had to overcome. Firstly, the original idea of liaising with professional nutritionists was affected by the sudden reimposition of COVID-19 restrictions. This resulted in us having to dedicate more time doing extensive online research, about the various ideas on healthy eating, in order to properly create resources that would benefit our target audience. Secondly, due to the substantial nature of the content covered, group members had to make time out from their busy schedules and commitments to complete the project. Whether it is the weekly Instagram posts, the filming and editing of cooking videos, or the constant updating and improvement of the website, this project was extremely time-consuming.

However, this project has also been an enriching experience, where during the process of creating the various resources, our group members have all learnt many new things about healthy eating, from broccolis having more Vitamin C to a plate of chicken rice containing 617 calories, and all of these facts even shaping some of our changes in diet, where we work towards a healthier lifestyle.

6) REFERENCES

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Link to resources:

<https://projectnutrifood.wixsite.com/website>