

Dietary health of university students

Human-Centred Design Engineering
Helen Shi



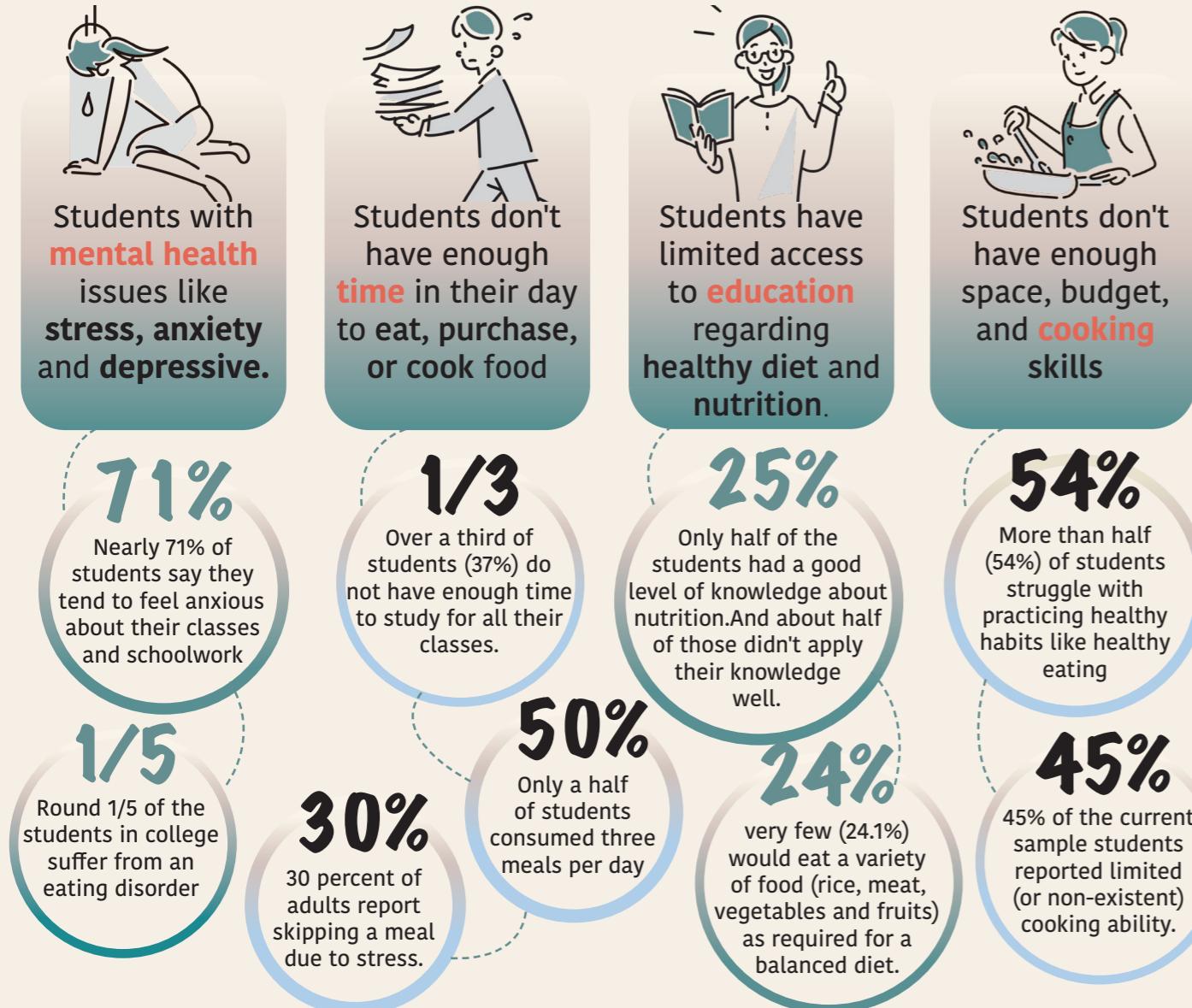
Context

INITIAL ASSUMPTION

- Most people, including students, want to stay healthy.
- Time** and **Pressure** are the main reason for unhealthy eating habits. (Busy study, social lives and DDLs limit their time to prepare healthy meals.)
- Students prefer **quick and more tasty** dietary solutions due to their heavy workload.

DESK RESEARCH

Possible factors contributing to unhealthy eating among university students and associated statistics



Impacts to improve students' dietary health

Environmental

Promoting healthier eating habits among students can contribute to **sustainable development**, as foods that are healthier, less processed, and more natural often have **lower carbon emissions during their whole life cycle**, from production to disposal.

Economical

In the UK, free **medical resources** are extremely **scarce**, and developing better eating habits can **save on medical costs**, while also saving students the expense of seeking medical treatment.

Social

Improving nutritional status can enhance students' **cognitive functions** and **academic performance**, thereby cultivating a more **well-educated workforce**, which is crucial for societal progress and innovation.

5W1H

WHO

University Students

WHEN

- During or before meal preparation or purchases
- During busier periods of the academic year.

WHAT

Improving the dietary health of university students in response to their unique challenges and limitations

WHERE

- On campus
- In the dormitory
- In social spaces

WHY

Assumed that most students find it difficult or not motivated enough to maintain a healthy diet, and this have a negative impact on students' health and academic performance

SURVEY RESULT

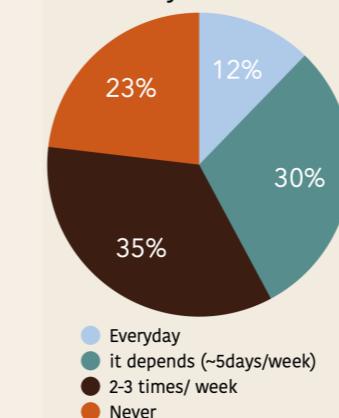
Survey Objective

The purpose of this survey is to obtain authentic information about the dietary habits of university students in the UK, to assist in identifying the primary issues faced by the users.

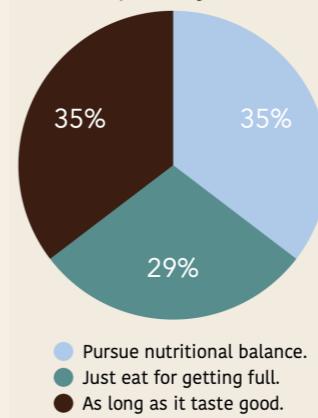


The survey received a total of **150** responses, of which approximately **90%** of the respondents were **university students** from various countries and regions, but the majority were studying in the **UK**.

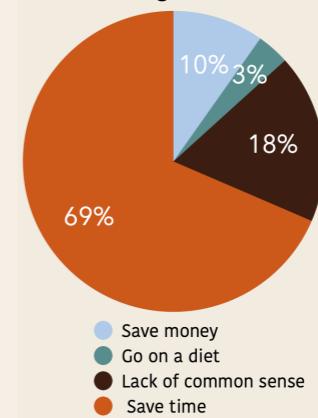
How often do you cook for yourself?



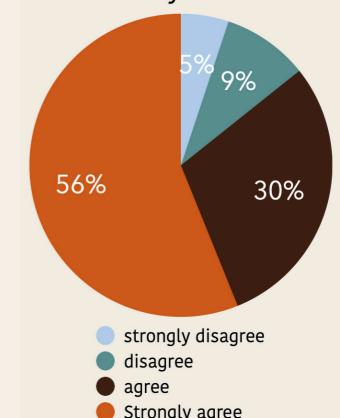
Which of the following best explains your diet?



Why do you think college students have unhealthy eating habits



You eat less or more than your usual during university workload



Survey Results Analysis

- Most student do have the desire to cook, and less than a quarter of students do not cook at all.
- About 2/3 of students only care about satiety and flavour over nutrition.
- 69% of students are eating unhealthily because of time saving, which is a higher percentage than we would have expected.
- In conclusion, we can see from the survey data that students do have problems with their dietary health due to heavy workloads, which is in line with the results of the desk research, but the specific reasons and their connections need to be further explored through individual studies and interviews.
- However, the statistics also show that there is a small group of people who can insist on cooking or maintain good eating habits even when they are busy, and we should also select this group as one of the extreme users for investigation and study in subsequent research.

Brief: HMW Improve the Dietary Health of College Students with Heavy Workload?

User research - Overview

Research Objective

To further explore the real eating habits of college students and the logical link between unhealthy eating habits and facts such as high academic pressure and time constraints.



Problems we seek to understand

- How heavy workload affect students eating habits?
- Why people have unhealthy eating habits?
- What behaviours are undermining dietary health?
- What people think about their eating habits?
- What are the real issues we need to address in order to improve the dietary health of our students?

User research method

STEP 1 Preparation

- The context is clarified, such as identifying known information, relevant user groups, and our assumptions about users' needs and challenges.
- Then, The problems we aim to resolve through user research is determined, as well as the methods for conducting these surveys (eg. interviews).



STEP 3 Observation & Diary study

For **Observation**, what people say may not be same as what they do, so observation is essential to understand their actual behavior.

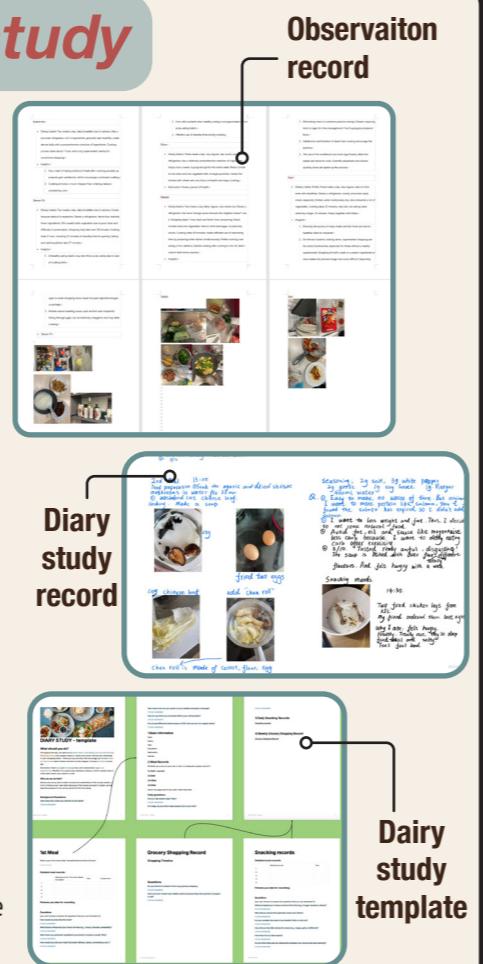
Approach

- Observe the dietary habits of university students living in dormitories, including cooking, eating, and the food they stored
- Taking photos and take notes
- A total of **6 students** are observed

For **Diary studies**, we aim to observe the behavior and psychological activities of potential users in greater detail.

Approach

- We created a **template in Notion** to provide respondents with a reference for recording their dietary logs. It mainly includes records of main meals and snacks, requiring the documentation of a series of **actions and mental activities** from the motivation to eat, through preparation, eating, to post-meal handling.
- We **select suitable participants** through a brief interview, ensuring diversity among the participants.
- Respondents are required to keep **handwritten diaries**, accompanied by **taking photos** as records (to ensure the records are made by themselves).
- A total of **5 students** are researched.



STEP 6 Ideation

See page 6 for Ideation approach.

STEP 2 Survey

- We conducted quantitative research using a online survey, that allowed us to obtain information on the real dietary situations of our target user group.

Approach

- **Deciding what to ask:** Questions based on factual dietary choices and lifestyle habits, as well as the questions about perspectives on diet and health.
- The **respondents** are university students studying in the UK, and the questionnaire was distributed via social media.
- A total of **147 responses**.
- **The results and analysis** of the survey questionnaire have already been displayed on the Context page.

Questionnaire on eating habits...
Unpublished

147
No. of responses



STEP 4 Interviews

Diaries and observations can only study the students' current situation, which is not during their busiest periods. Interviews can address this issue by asking students about their feelings and behaviors during these busy times in the past.

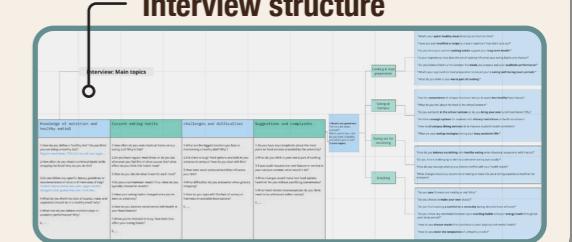
Approach

- The team discussed and created an interview plan and question framework, then established a preliminary interview question script.
- The respondents were all students who had completed diaries and observations. Therefore, we refined the question script with specificity based on a preliminary analysis of the diaries and observations.
- The interview mainly consisted of three sections: daily dietary habits, situations regarding deadlines and exam preparations, and **how deadlines and exams affect dietary habits**.
- we identified some **extreme users**, such as students who are athletes, those who are very fond of cooking, or those who never eat out.
- We interviewed **12 participants**, mainly from IC & UCL.
- All interviews were **audio recorded and summarised in scripts**.

Interview questions



Interview structure



STEP 5 Analysis

After analyzing the results of our user research, we summarized two **personas** and their corresponding **UX maps**.



Generating **insights** based on all the user research done, including personas, UX maps ,or even Desk research.

Generating **HMWs** based on those insights .

User research

Observation

Imperial college student accommodation (ensuite).



This observation took place when there is no rush DDLs so most people have time to cook.

We observed how the students ate in the **communal kitchen**, thus observing the whole process of food preparation and what they all ate, how long it took, etc.

What we find out from the observation:

- Major reason why students choose to cook is to **save on their budgets**
- 3 of the 4 students we observed took an average of **50 min** to cook their meals.
- the size of the countertop and the variety of tools in public kitchens greatly influenced their desire to cook.
- Students who has cooking habits are more likely to go for **healthier choices**, such as more vegetables.

Imperial college Dinning Hall, Kokoro.



Every weekday afternoon at random times for one week

Kokoro's food is not nutritionally balanced and has almost **no vegetables**, but many students still choose it because it **tastes good**.

What we find out from the observation:

- A number of students **don't care** so much about a balanced diet.
- People tend to prefer **flavour over health**.

Diary Studies

One day's diet for students when they are not busy

"I ate 1 seeded bagel, an egg and some strawberries with a cup of Americano and some vitamins."



1st Meal:
10:20-10:40

2nd Meal:
13:00-13:45

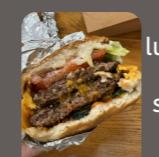
1st Snack:
14:15

3rd Meal:
18:30-19:00

Exercise:
21:00-22:00

One day's diet for students when they are busy

"I didn't have breakfast because I was tired to do it, I decided to start working right away, then I got hungry so I grabbed some biscuits"



1st Snack:
10:20

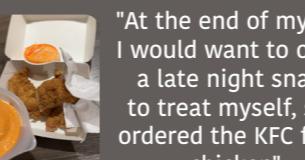
"I didn't feel hungry at lunchtime, until afternoon I realised I should eat something or I cannot be focused so I ordered a hamburger."

1st Meal:
13:10-13:35



2nd Snack:
16:20

"I used to snack while I did my coursework, it made me feel less anxious, and this chip is nice"



2nd Meal:
21:30-21:55



Interview

Our group interviewed **10 university students studying in the UK from 4 different countries**.

Student 1:

Q: How do your eating habit change when facing upcoing DDLs?

A: I will order takeout because it avoids wasting time cooking. I eat only when I am really hungry.

Q: Do you think its still possible to eat healthily in this situation?

A: We can choose to order healthy food, like salads.

Q: Would you do this?

A: Never! Fighting for DDL is hard enough, I **prefer food that makes me feel good**.

Student 2:

Q: How do your eating habit change when facing upcoing DDLs?

A: When I'm stressed, I **overeat food** that I don't normally allow myself to eat, like sweets.

Q: What do you think that lead to this behaviour?

A: I have no way of controlling how much I eat, I just keep eating until I feel uncomfortably full.

Student 3:

Q: How do your eating habit change when facing upcoing DDLs?

A: definitely becomes less healthy, Deliveroo is my quick way to get a meal.

Q: What factor contribute to this change in your eating habits?

A: The **time available** to me and the people around me, if everyone can eat healthier, I'll probably do the same.

Q: What support do you think you need to have a healthier diet?

A: Something that encourage me to eat healthier or something that allows me to eat healthier with minimal effort or the time consumed.

Findings from user research

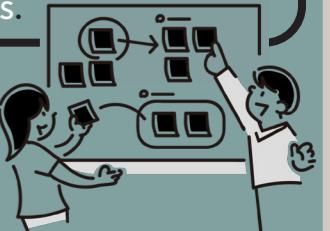
I eat instant noodles almost every day because it's hard for me to cook complicated meals in my dorm, and instant noodles at least taste not bad.

I overeat snacks when facing upcoming DDLs due to stress and unregular meals.

I often choose fast food when I'm busy, though I can't get enough nutrients in.

Difference between the result of interview, observation, and diary studies

- We conducted a diary study and an interview with **the same participant**, doing a total of five.
- There is a gap between what they describe as their daily eating habits and what they really eat as reflected in their diaries, with most people overestimating how healthy their diets are.
- Almost every respondent had some knowledge of nutrition, but the results of the observations and diaries showed that less than half of them would utilise them in their daily lives.

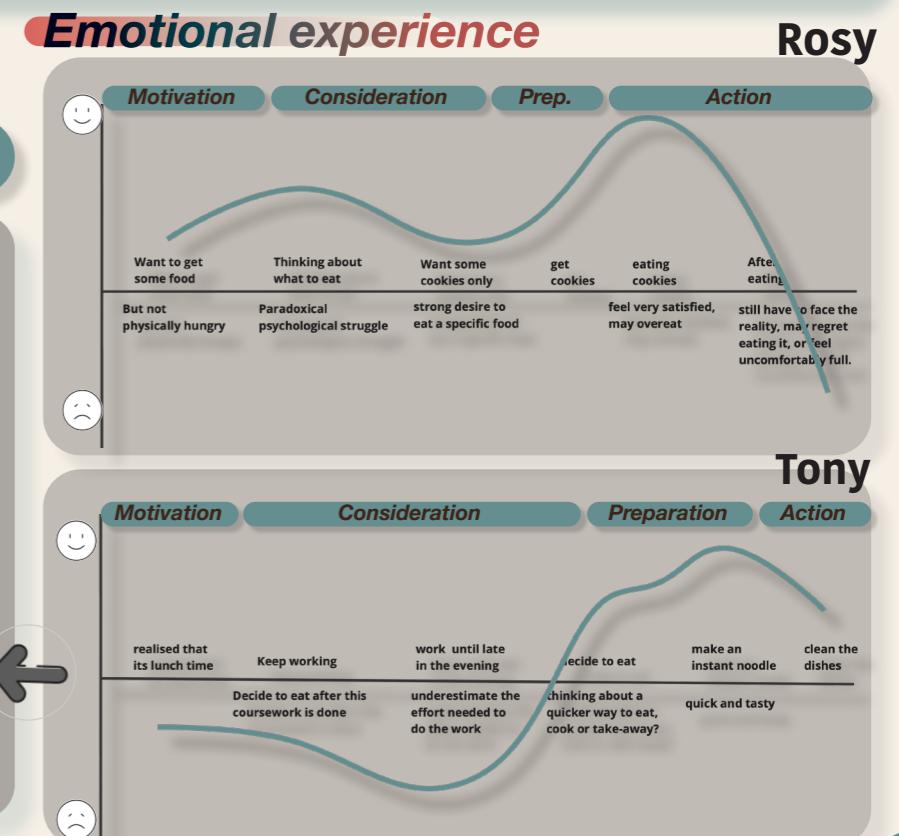
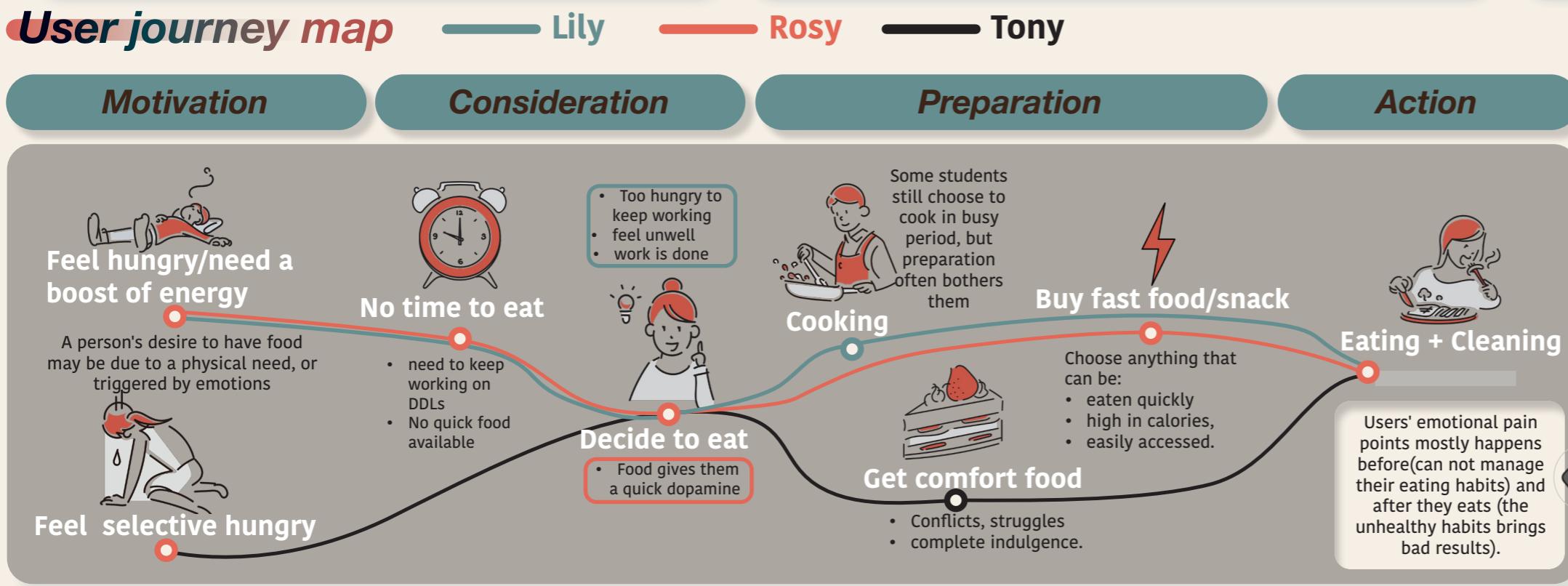
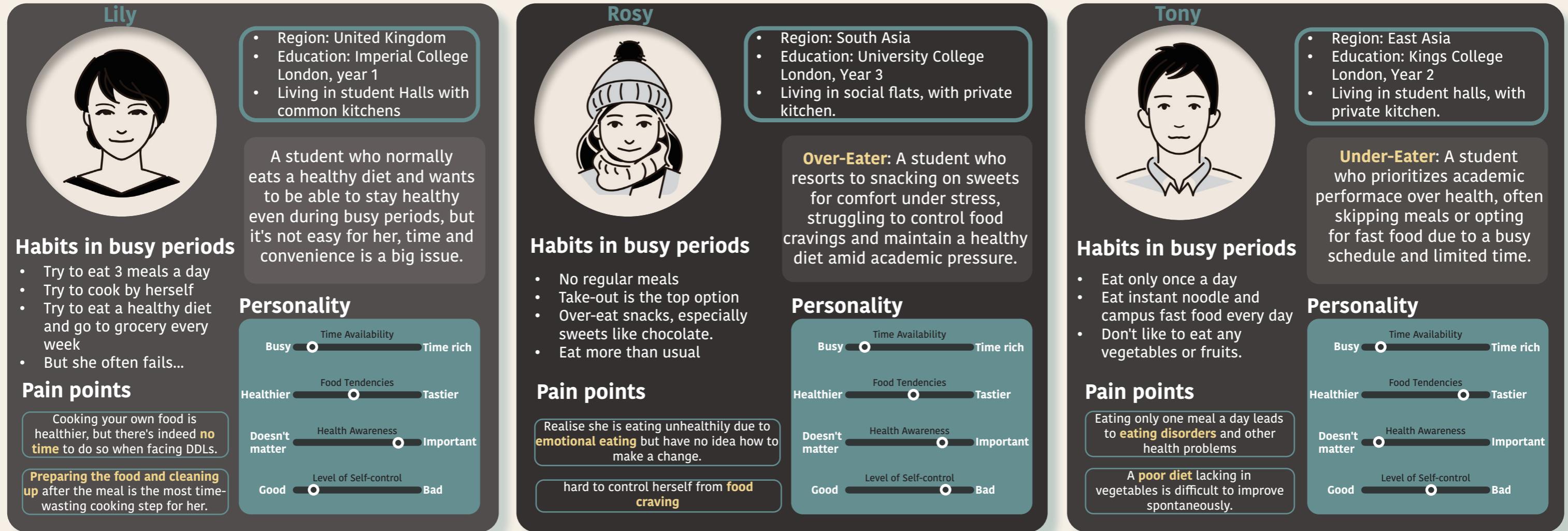


Other key findings

- 4/5** of the participants' responses showed that time is the main reason why people eat irregularly, eat junk food, and don't have enough nutritional intake.
- DDLs and exams significantly lows everyone's cooking frequency.
- Half** of the participants shows under-eating or over-eating under heavy workload due to pressure and anxiety.
- People often use takeaway apps to buy fast food such as fried chicken or burgers, although there are plenty of healthy food options available on apps too.
- Much of the food served in **school canteens** does not follow proper nutrient distribution and many of the foods are chosen for relatively more unhealthy cooking techniques, such as deep-frying.

User Research-Persona & UX Map

Personas



Insights & Opportunity

Initial Insight & HMWs

Insight

1 even students know they should maintain a healthy diet during busy periods, they are unable to resist the temptation of unhealthy foods due to the depletion of their willpower by heavy workload.

2 Although most students have some knowledge of nutrition, the majority fail to fully apply it in practice.

3 Most students suffer from eating disorders, like reducing their meal frequency due to concentrated assignments and exams, sometimes eating only once a day.

4 Most students find meal preparation time-consuming, especially those making Asian cuisine, as it has a higher demand for ingredients, cooking tools and cooking techniques, especially during busy periods.

5 Most students choose to order takeaways or eat street food when they are busy, and this behaviour greatly increases their chances of making unhealthy food choices

6 Most international students rely on the dietary habits of their home country, leading to difficulties in making food choices in UK.

HMW

HMW help students reduce their consumption of unhealthy foods by minimizing the **self-control** needed to refrain from **food craving**?

HMW improve students' unhealthy habits by focusing on the **reasons** why they **have trouble practising** health and nutrition **knowledge**

How do we address **eating disorders** in college students in order to develop healthy eating habits, such as proper amount and frequency of eating.

HMW improve students' **food preparation experience** and efficiency to increase their cooking speed and quality.

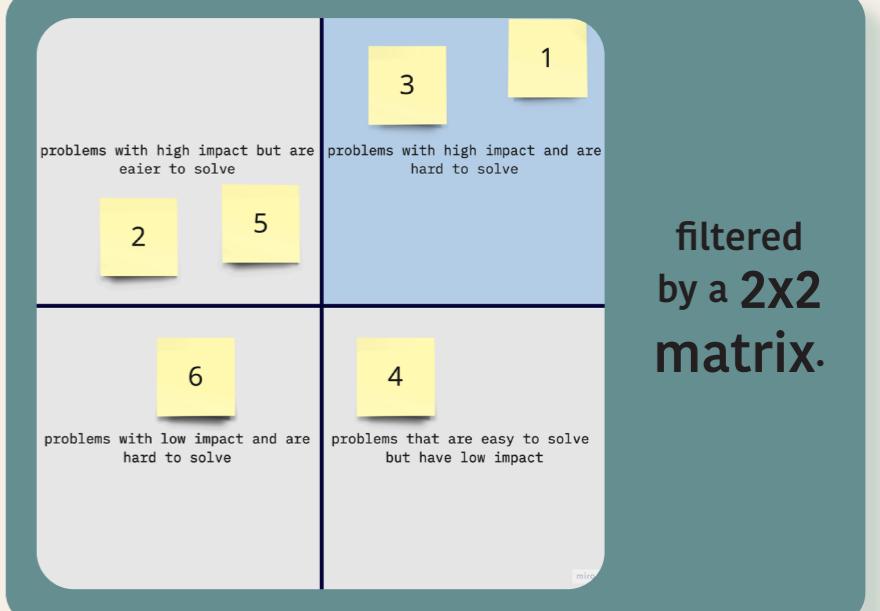
HMW help make it easier for students to **make** relatively nutritious and **healthy food options** when they have absolutely **no time to cook**?

HMW **provide more food options in the campus** that meet the requirements of students from different cultural backgrounds?

Desk research on the 1st HMW

Baumeister and his team introduced a theory suggesting self-control relies upon a limited resource, such that engaging in acts of restraint depletes this inner capacity and undermines subsequent attempts at control. The concept, known as 'ego depletion,' highlights a temporary decline in self-regulation after initial use. This theory has significantly impacted psychology, neuroscience, and behavioral economics.

Selection of HMWs



Difficulties & Next step

Inhibiting food cravings and changing food choices isn't easy because it involves changing a person's behavioral habits. If someone is determined to eat unhealthy foods, even direct persuasion can be very difficult. So, what should we do?

See the next page for the answer.

Final HMW Questions

HMW **help university students who experience food cravings and eating disorders to choose healthier food options in order to ensure their nutritional intake and adapt to their busy study schedules?**

Ideation overview

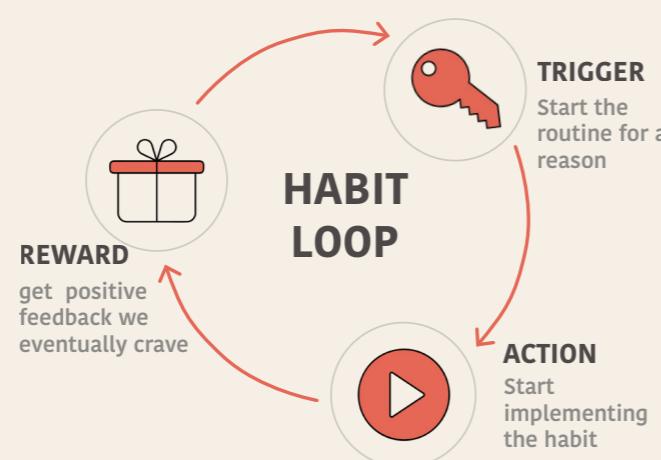
STEP 1 Generation of 15 concepts

Approach

- This HMW question is very tricky because it is about changing the user's behavior and their habits. A key entry point is to try to **change the user's habit loop, educate them.**

How to design for behaviour change?

- capture the user's attention**
- convince them to engage with your product or service**
- compel them to take action and improves their life**



- Quick sketches of more than 15 ideas.
- Ideas refinement organization.

STEP 3 Improvement of 3 concepts

3 pages are used to present concept development, where each page will cover the development and refinement of 3 concepts.

Approach

- The first co-design session is a C-sketch done with the groupmates to get some feedback from the initial ideas.
- Based on the feedback I've done some initial organizing and refining of these designs.
- Next we developed some of the core functionality of the design.
- We created prototypes based on these concepts. The main purpose of the prototypes is to show the user its main features or to let the user experience the product in person.
- We then did a second Co-design, where our team members acted as each other's users, introducing each other to the product and the prototype, while conducting interviews with the 'users'.
- With the feedbacks from the 'users', we made further improvements on the concept.

We iterated on the design (only a portion of the iteration is shown due to limited space), kept getting feedback from users, and made improvements until the product was

HMW help university students who experience food cravings and eating disorders to choose healthier food options in order to ensure their nutritional intake and adapt to their busy study schedules?

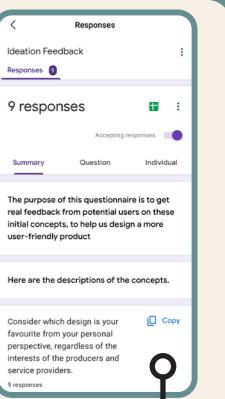
STEP 2 Selection of 3 concepts

Approach

- First selection: Venn Diagram
- Second selection: Design decision matrix
 - 9 participants go through 15 ideas and rate them.
 - Then, From the user's perspective, use intuition to determine which product you like best and vote on it.
- the 3 concepts with the highest scores are selected.

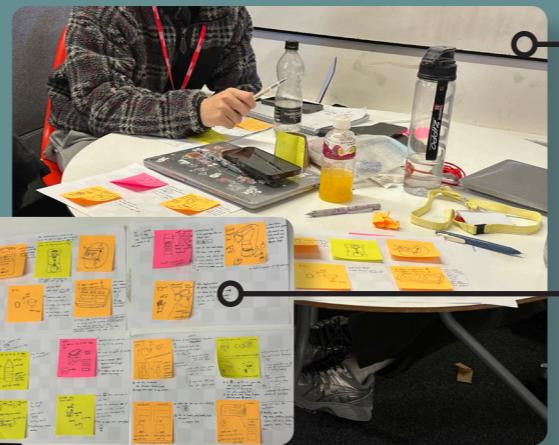
Link to the Survey

https://docs.google.com/forms/d/14jd3K2uPGxk8Rsl1RGpauJMPQpipAxI2xtL0d2J_Qw/viewform

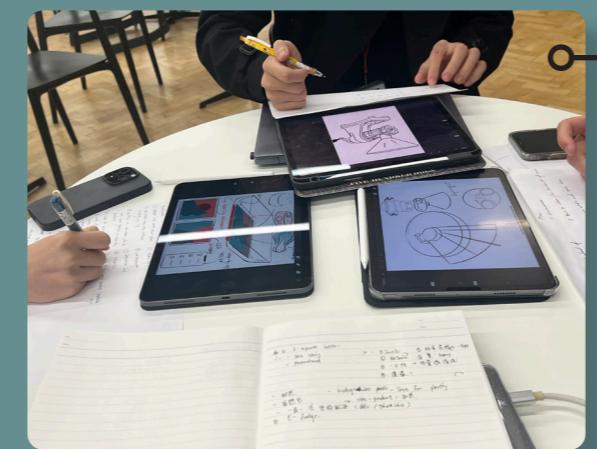


Screenshot of the Survey

Concept Development Methodology



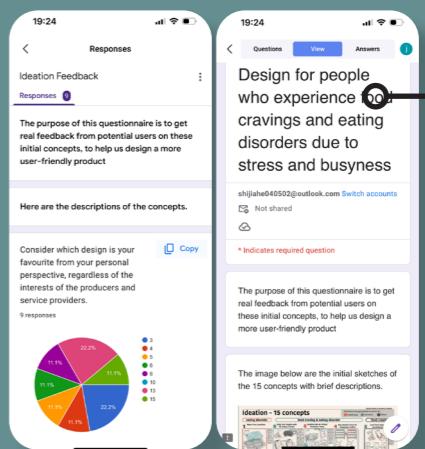
Co-Design session: C-sketch with group members



Feedback from the C-sketch



Prototyping and user experience for the appetite-suppressing glasses

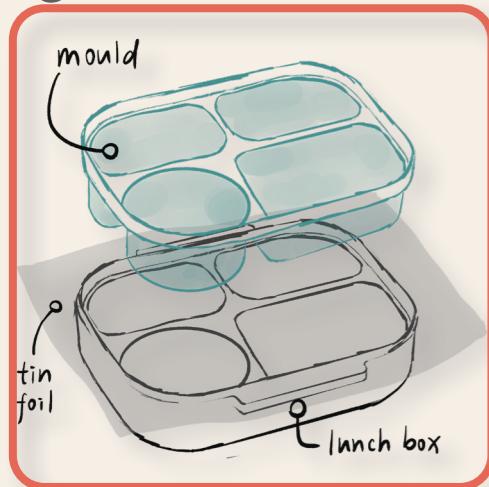


Co-Design method: Let users choose what they like through a survey.

Ideation - 15 concepts

eating disorder

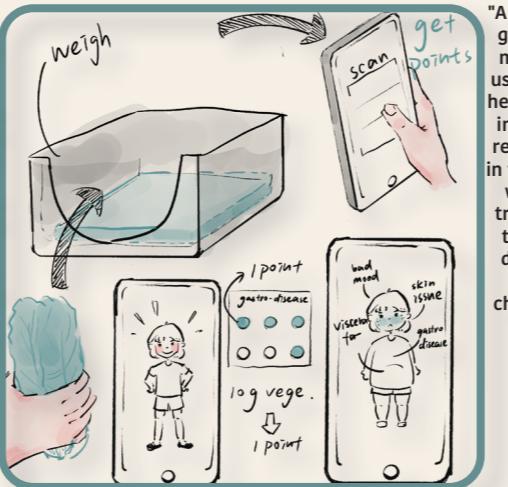
1 Wash-Free Lunchbox



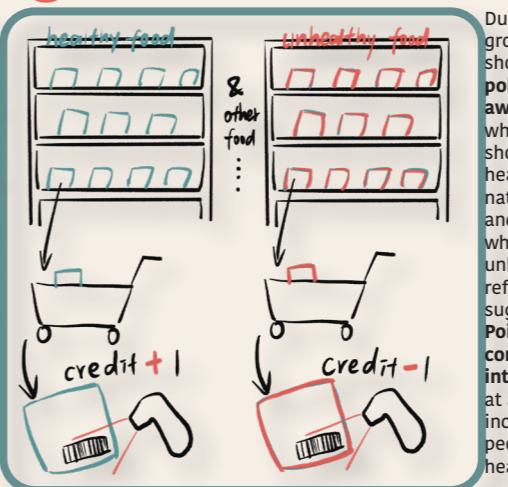
2 Daily Diet Insight with VR Eating Tracker



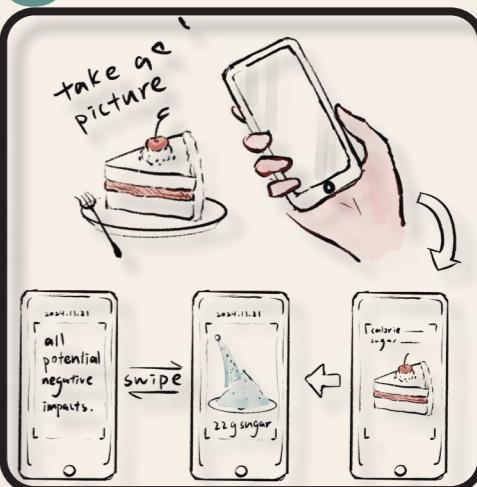
3 Mobel Game for Healthy Eating



4 Buy Healthy Food for Points and vouchers!

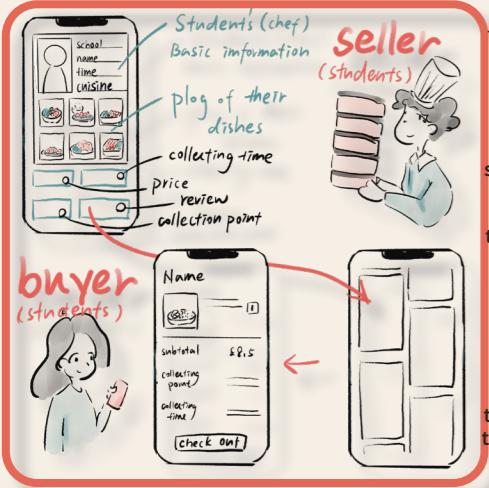


5 Junk Food Impact Visualisation

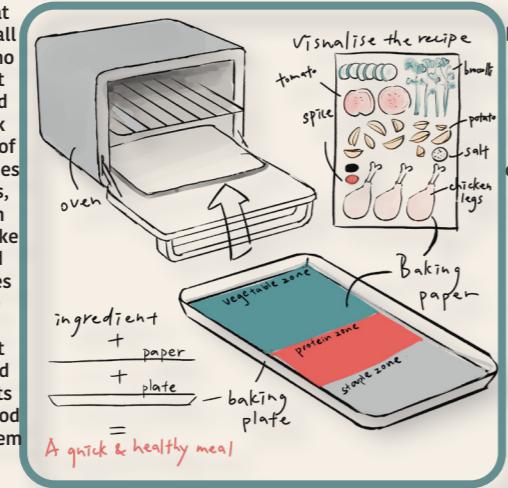


"We underated the harm of junk food because we can't quantify its impact. This app act as a reminder by visualizes sugar or fat intake and educates on its effects."

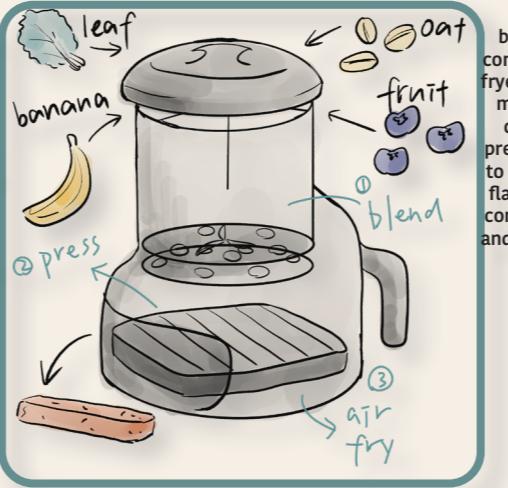
6 Diverse Campus Dining App



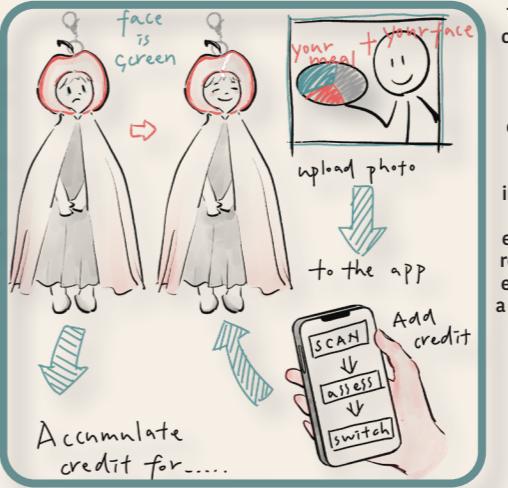
7 Oven Meal Planner for Balanced Nutrition



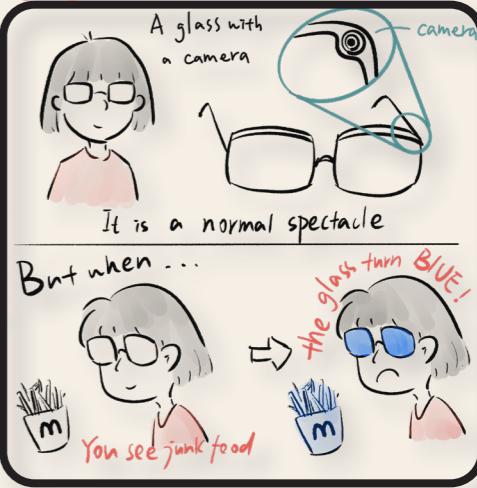
8 All-in-One Energy Bar Maker



9 Rewarding Pendant with Interactive Screen

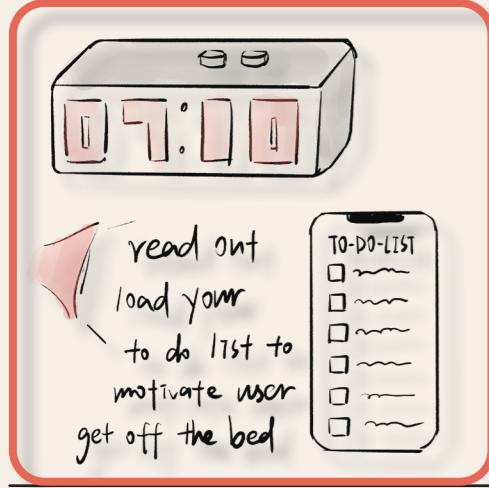


10 'Stop eating!' Glasses

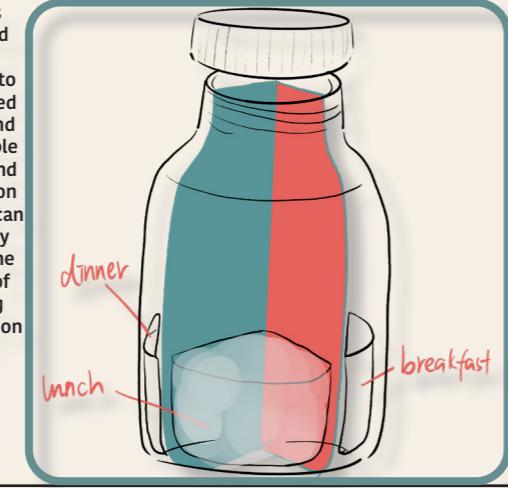


"Blue colour inhibits appetite: these glasses are made of electro chromic glass that turns blue when it detects that the user is looking at junk food"

11 Regular routine - regular diet

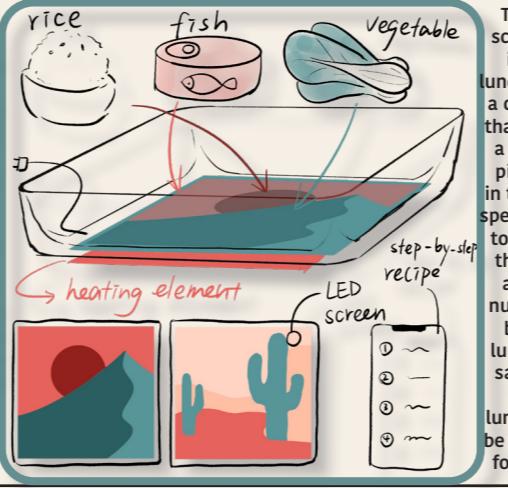


12 Meal Replacement Shakes for a Day



"People's disordered eating is often due to a disordered routine, and when people wake up and go to bed on time, they can potentially improve the problem of not being able to eat on time."

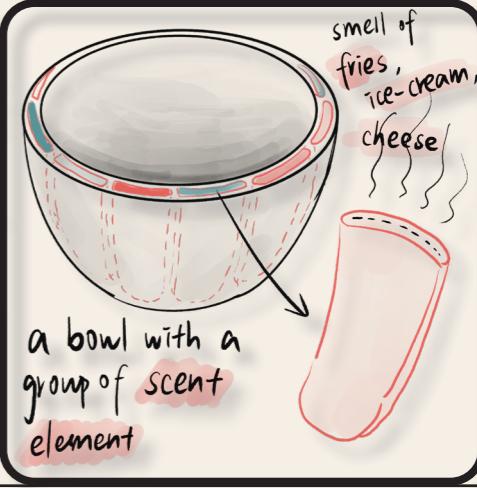
13 Food-to-Art heatable Healthy Lunch Box



14 Health-Minded Grocery Planner



15 You Feel Like You Ate It, But You Didn't



Pretend to eat the food you crave: the sense of smell accounts for 80% of the experience when eating. The bowl is surrounded by replaceable food flavouring elements that allow you to feel the scent of the food even when you are eating plain, healthy food.

food craving & eating disorder

Solutions are generated in terms of...

habit loop

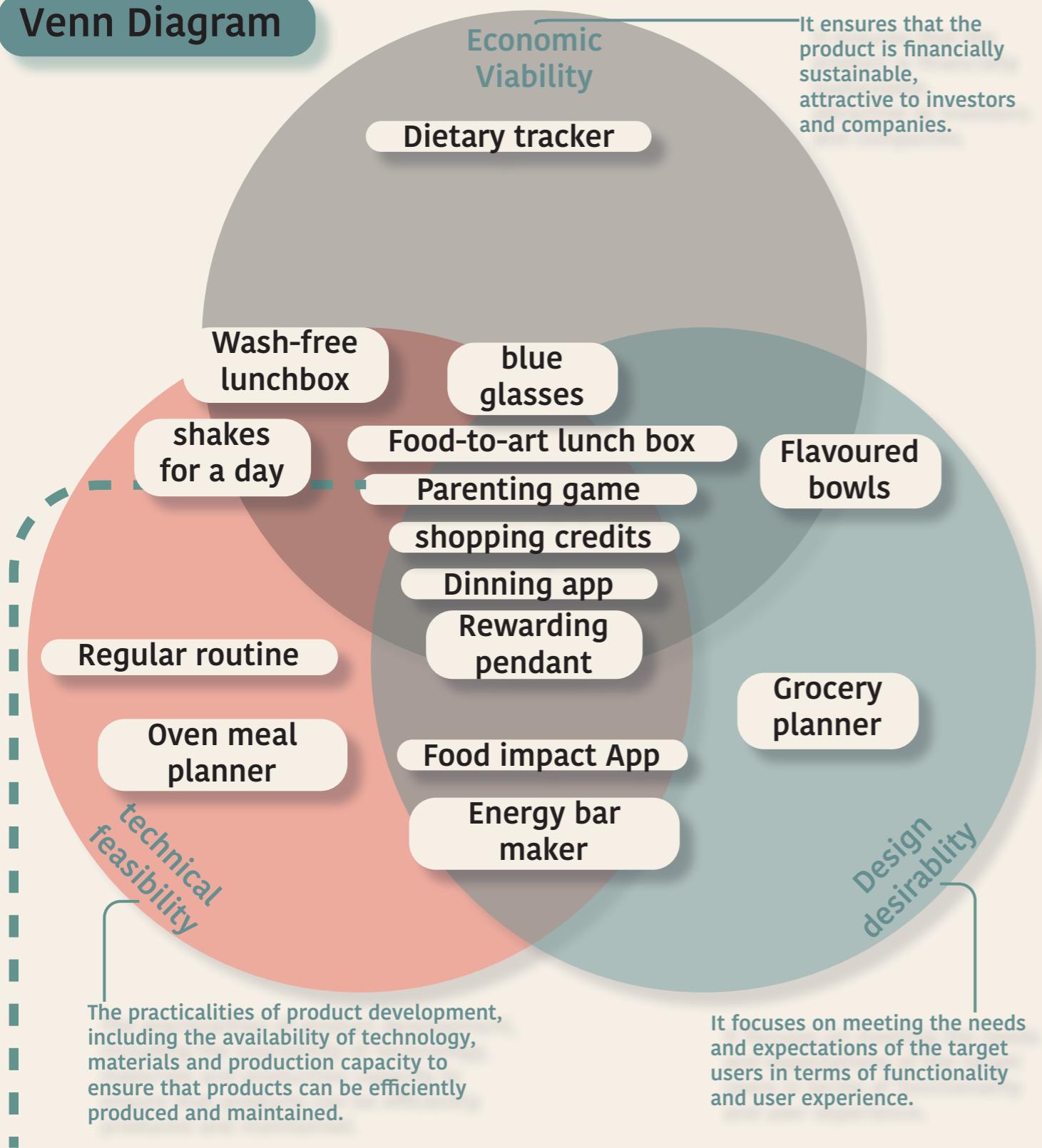
Education

Others

food craving

Ideation selection

Venn Diagram

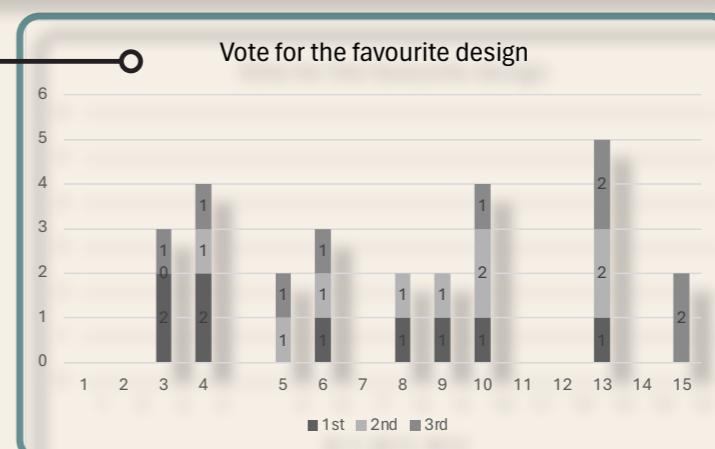


Selection methodology

A first screening was done using Venn diagrams with three key criteria, and the results of the Venn diagrams were discussed by the team members, resulting in a selection of six options. Then, using the Decision matrix, the scoring was refined to include more detailed metrics, and in the 'user preference' section, we asked nine users to vote for their three favorite designs, and used the results of the voting as the score for this section. The three with the highest scores were selected.

Design decision matrix

	3	4	6	9	10	13
Substitutability	5	5	4	5	5	4
Difficulty of use	3	5	4	3	5	4
Level of necessity	2	3	4	3	4	3
Emotional value	5	3	3	4	3	5
Health safety	4	4	2	4	4	5
User preference	3	4	3	2	4	5
Total	22	24	20	21	25	26



How these concepts are scored?

These scores represent the average ratings of 9 students aged 18-22 studying science, engineering and the arts from different universities in London.



Final Ideas

How they solved the HMW problem? (Design Objective)

13

- Motivate students with **eating disorders** who eat **insufficient meals** through fun preparation and beautiful plating.
- Help college students consume adequate and **balanced nutrition**.
- Simplify cooking process.

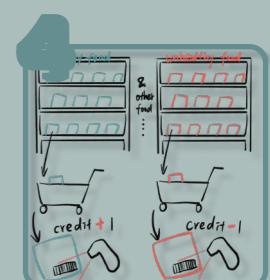
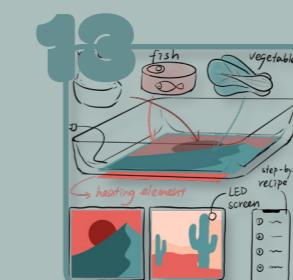
10

- Using human physiological responses to address **food craving**.
- Helping patients with **eating disorders** to address **binge eating**.

4

- Motivate students who like to eat **junk food** during stressful times willing to **choose healthy food** for **shopping credits**.

Three choosed concepts for further development



Concept development phase 1

'Stop Eating!' Glasses

Food-to-art Healthy Lunch Box

Points & Vouchers for Healthy Food

Initial concept and Feedback after the 1st Co-design (C-sketch)



Co-design Feedback

POS. "Very effective and fun design, as I do lose my appetite when I see food turn blue!"

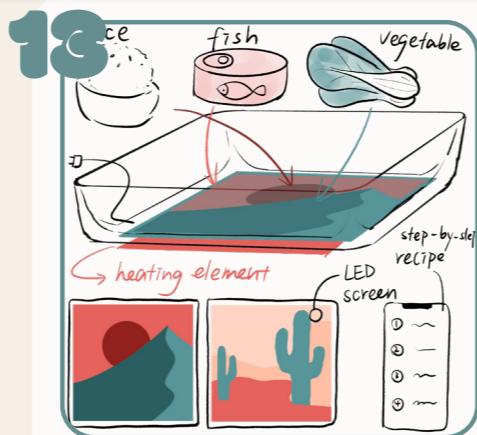
PROB. ① "Maybe I'll have a hard time with it at first because it keeps me from eating what I want to eat."

② "Making glass change color based on what we see seems difficult."

③ "They can be heavy if there are too many components in the glasses."

Initial concept

A glasses with a **micro-camera** which observes and counts the amount of **time** you spend **staring** at junk food, and when a certain amount of time is reached, the lenses **turn blue**, **reducing the user's desire to eat..**



Co-design Feedback

POS. "Users can be creative with their plating and also eat a **nutritionally balanced** meal."

"It will encourage me to **cook**."

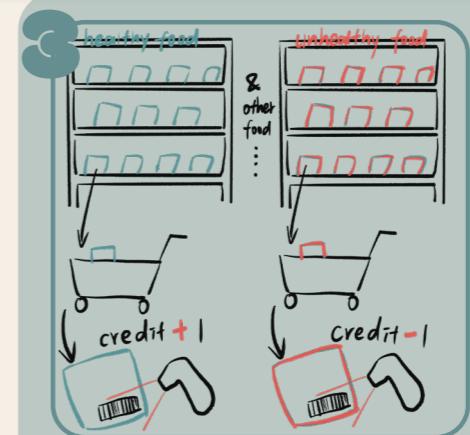
PROB. ① "How to **implement** both the heating **function** and the screen display on one lunchbox."

② "It might be **too complicated** to use an **App** on a lunchbox"

③ "I may **don't have time** for plating but still want to use it "

Initial concept

There is a **screen** built into this lunchbox with a clear cover that presents a colouring **painting with recipe**, fill in the food in specific places to complete the picture and get a nutritionally balanced lunch at the same time. And the lunchbox can be plugged in for heating.



Co-design Feedback

POS. "There will be **strong incentives** because people instinctively seek more benefits."

PROB. ① "It is **difficult to clearly define** healthy or unhealthy foods."

② "This may affect **some of the business owners** as points will be deducted for purchasing their products."

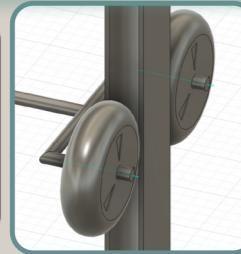
③ "How do I check these points?"

Initial concept

An improvement to supermarket systems that **points are awarded** when people shop for healthy, natural foods and deducted when they buy unhealthy, refined, high-sugar foods. **Points are converted into vouchers** at a rate to incentivise people to buy healthy food.

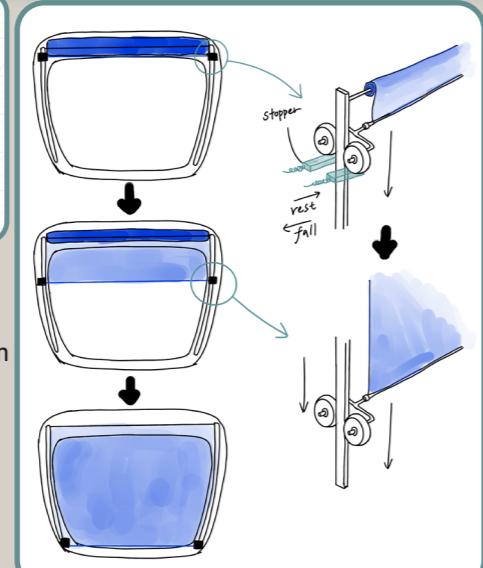
Initial Development based on the feedback

1. The working mechanism for the lens' color change

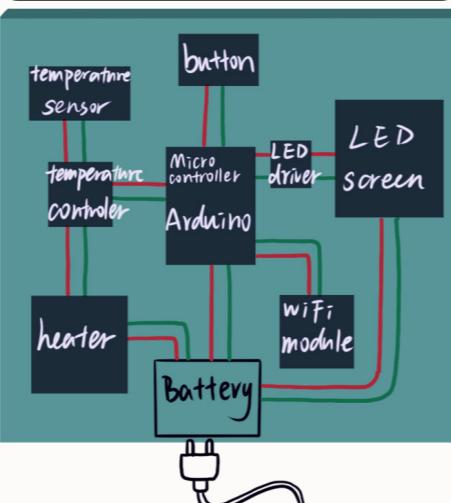


The blue filter is a sheet of film that is initially locked on top of the frame; when the filter is triggered, it unlocks and the filter drops down using gravity and locks in place at the bottom. Once unlocked (users are away from food), the user can retract the filter manually.

2. Use the material with a good strength-to-weight ratio
eg. Bamboo, TR 90 plastic



1. Functional design of the circuit board in the lunchbox



2. No app, but content and programming built up in advance

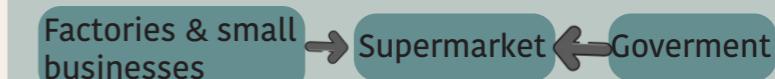
The content and programmes are stored on the hard drive in advance and the service provider updates the recipes in real time, which are automatically downloaded when connected to wifi.

3. For those who don't want to use the plating function, there is an option to prepare food only from recipes.

1. Define healthy and unhealthy food

Though the definition of healthy is very vague, there are **professional organisations** that can define 'healthy' and 'unhealthy'. The **FDA[5]**, for example, but at the moment the FDA has no restrictions on added sugar, which is clearly unreasonable, so we need **more rigorous standardised nutritional labelling**.

2. Supermarkets cover the costs and government subsidises them.



Factories and traders will not run the risk of increased costs, and supermarkets will not lose out on benefits. And the Government is justified in subsidising merit goods.

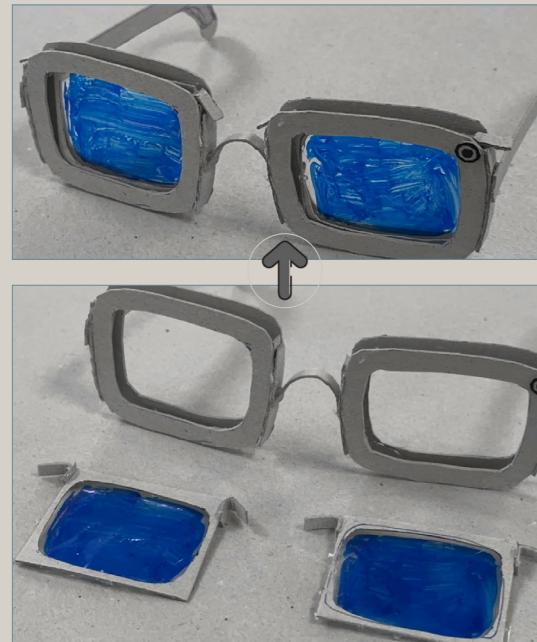
3. Build an App for Points & vouchers

Concept development phase 2

Iteration: Feedback and Development after Prototyping & 2nd Co-design (interviews)

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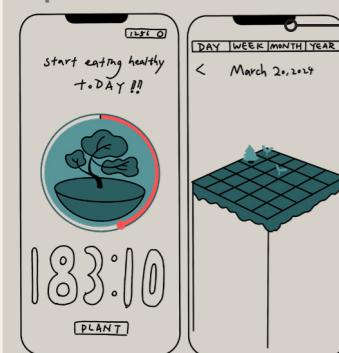
Prototyping and User Trials



User Feedback 1: Lack of motivation to use the product

"There's nothing stopping me from taking off the glasses if I insist on eating more."

Improvement 1:



Combine this with software (refer to 'Forest: Focus for productivity') to create an app for planting trees by the amount of time spent wearing glasses to motivate users.

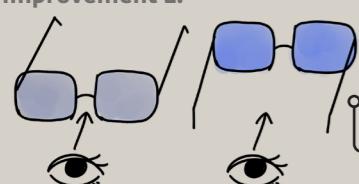


When the user removes the glasses for more than 10s, the small tree withers.

User Feedback 2: User acceptance of the glasses

"I'd be embarrassed if people saw me with blue glasses."

Improvement 2:



- Only looks blue from the inside.
- Make the shape as close to everyday glasses as possible to ease the embarrassment.



User Feedback 3: The glasses should have a professional usage instruction.

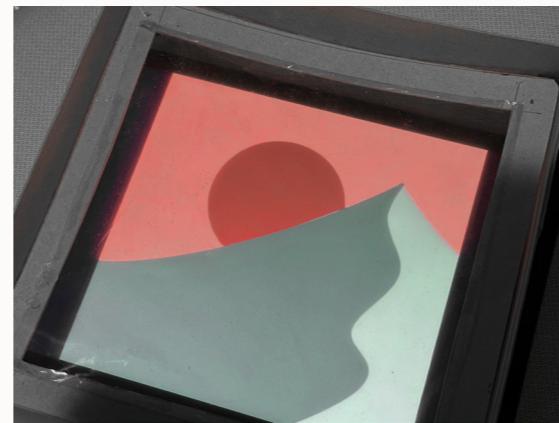
"I don't want to wear these glasses forever! Though it keeps me from eating too much."

Improvement 3:

- Cooperate with specialised medical institutions.
- For each eating disorder patient with specific dietary avoidance, the detection procedure of the glasses is customised.
- Eg. For bulimia patients, the limits are focus on the amount of food intake. For sugar-dependent students, the limits focus on sugary food.
- Recognizing food with AI.

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Prototyping

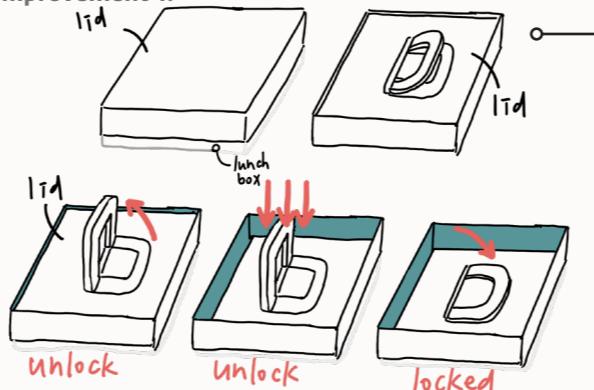


- The Lo-fi prototype is made of cardboard, foam and transparent plastic film.
- An iPad is inserted into the box as a built-in screen to demonstrate the effect.

User Feedback 1: The layout could be ruined by the bumps on the way to school.

"Even if I make a lovely lunch bento, it's likely to get shaken up along the way."

Improvement 1:



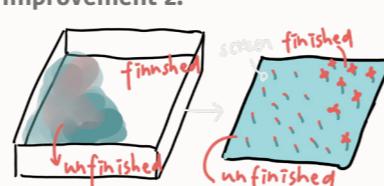
- Fix the food using a lid that can be pushed down and locked, pulled up and unlocked.
- Ideally this will drastically reduce food displacement caused by shaking and tilting the

User Feedback 2: Incentivise the users to eat the food after they have made them.

"The screen will not be used after cooking, so why would I bring it to school?"

"Even if I make a lovely lunch bento, it's likely to get shaken up along the way."

Improvement 2:



- Let the screen delivering rewards to users.
- Eg. The screen will show up as a field during the meal, and the flowers in the field will gradually bloom as the food is consumed and the bottom of the bowl is constantly exposed. Give the user a magical visual experience.

User Feedback 2: "Is it should be safe and washable."

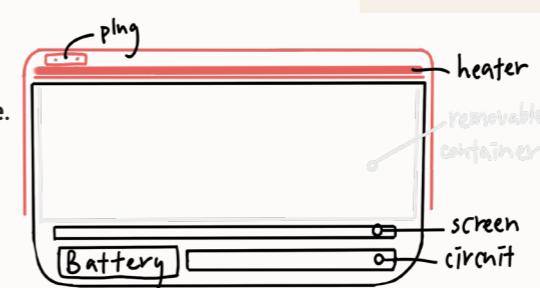
"Will it be safe if the heater is close to the screen and the circuit board?"

"How should I clean it safely?"

Improvement 3:

Solution:

- Divide the body into a lid, a built-in container, and a case.
- The material of the food container is thermally conductive, dishwasher safe and food grade.
- The bottom of the case contains the screen and circuit board, and the battery.
- The lid contains the power socket and the heating plate.



Description:

- The power source is directly connected to the heater to supply it with power. Meanwhile, when the lid is placed on the casing, it connects to the battery within the casing that powers the screen and processor. When the lid is closed, the power source charges the battery and powers the heater; when the lid is opened, the battery supplies power to the processor and screen.

In the phase 2 of the concept development, we made prototypes based on the feedback and design goals, then more feedbacks are gained in the 2nd co-design session, and more improvements are made.

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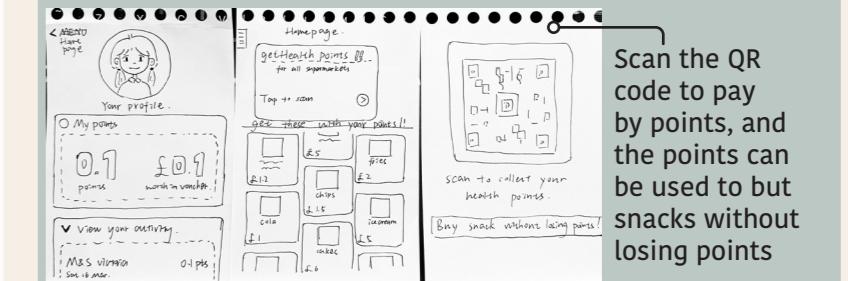
Prototyping and User Trials



- I had some participants simulate trying out the system.
- I told them about this set of point rules and told them to buy food based on it.
- Then I help them calculate their points and show them the points page in the app.
- After it was over I asked them how they felt and what they thought.

User Feedback 1: How to use the points?

"How to use the points, and can I use the points on everything?"



Scan the QR code to pay by points, and the points can be used to buy snacks without losing points

User Feedback 2: Controversy over the definition of healthy.

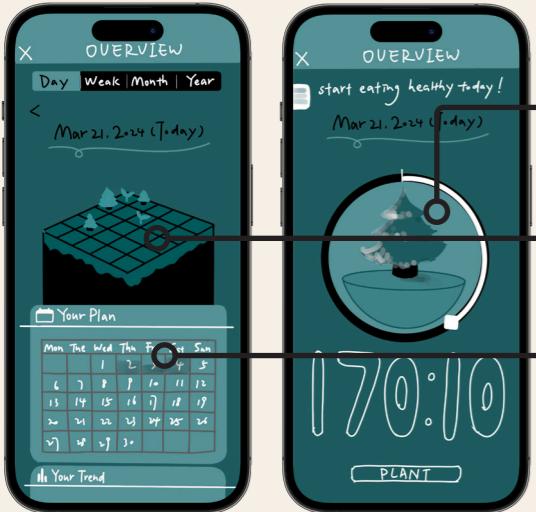
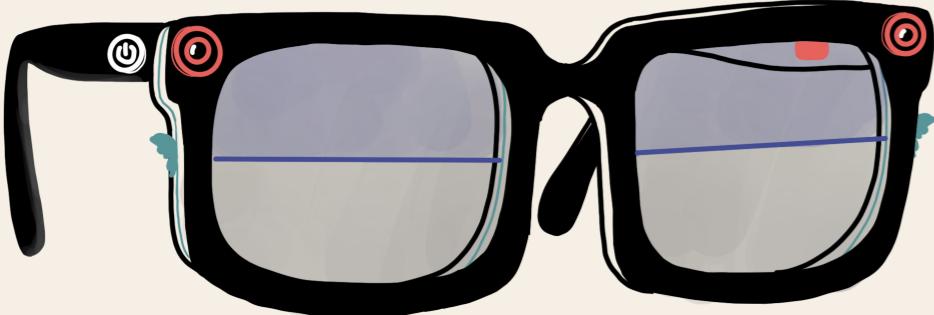
"What if I am not agree with a certain food to be defined as healthy or unhealthy according to my own condition?"



Users can submit a request to change the definition of health for a product in the app.

Final Concept

'Stop Eating!' Glasses



Remaining wearing time of the day's target. If you keep wearing it, you can successfully plant a tree.
The trees you plant this month
Treatment planning schedule: how many more days to carry it and the length of wear per day.

User's guide (Product Instruction Manual)

If are unable to stop eating even when full, or if you're particularly addicted to sweets, consider these glasses. After buying, experts will evaluate your health condition to create a personalized plan.

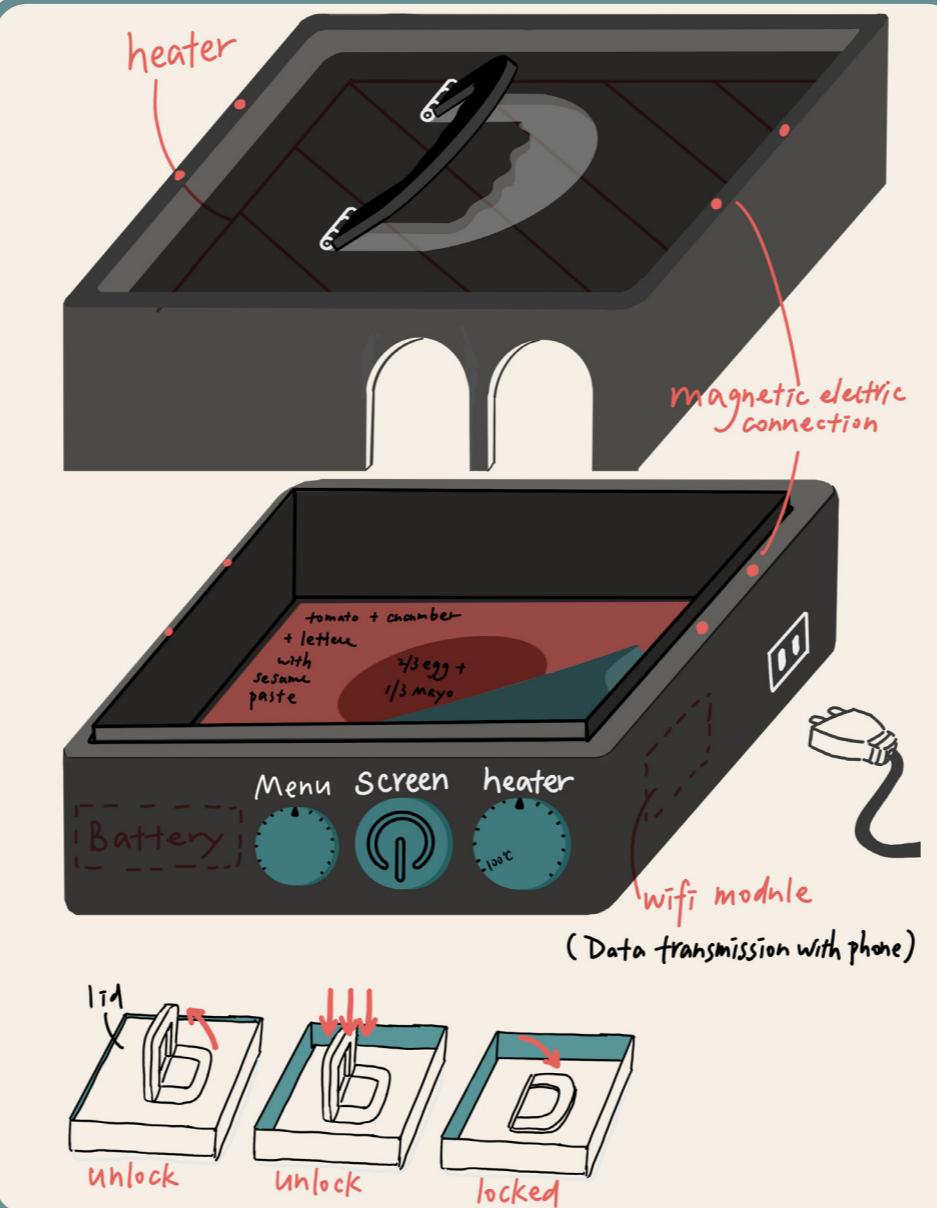
Register in the app to access your plan and start planting virtual trees!.

To usage, once the camera detects that you're looking at foods you should not eat. The **blue filter** will slides down and locks at the bottom, preventing you from lifting the filter. Additionally, **removing** the glasses could cause your virtual trees to **wither**, leading to an increase in the required wearing time in the future.

It unlocks once you stop looking at such foods, allowing you to **slide the filter back up** with a handle.

When your treatment ends, professionals will reassess your condition. If your issues have been resolved, congratulations – you can **remove the glasses!**

Food-to-art Healthy Lunch Box



If you find yourself uninterested in eating, lack of appetite, or unsure how to eat healthily, and interested in drawing and plating, this bento box could be an excellent choice.

To prepare the bento, open the lid, then flip the switch on the side of the box. This will light up the screen, where you can use the menu button on the left of the switch to choose your preferred paintings and recipes. Next, place the food in the corresponding color blocks.

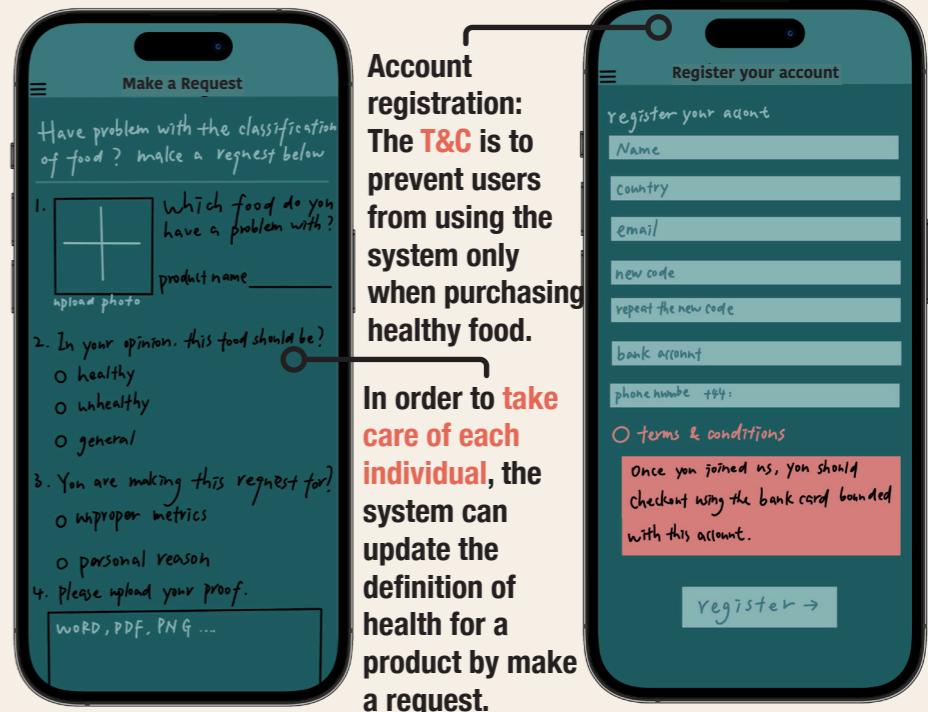
After assembling your bento, close the lid and lift the handle on the lid. Press down until the food is securely in place, then press down on the handle to **seal and secure the lunchbox**.

When it's time to eat, open the box using the same steps, connect the lunchbox to power, and adjust it to the proper temperature for heating. Then, you can enjoy your delicious meal!

Points & Vouchers for Healthy Food



Homepage: entry to the health points card & Product browsing interface for motivation



Account registration: The T&C is to prevent users from using the system only when purchasing healthy food.

In order to take care of each individual, the system can update the definition of health for a product by make a request.

Appendix | Reference to the data used in secondary research and concept development

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[11]: Millenium - Journal of Education, Technologies, and Health (no date) 'Article Title', Millenium. Available at: <https://revistas.rcaap.pt/millenium/article/view/21510> (Accessed: 19 March 2024).

[12]: The Miami Student (2021) 'Want to do well in school? Your body needs fuel', The Miami Student. Available at: <https://www.miamistudent.net/article/2021/10/want-to-do-well-in-school-your-body-needs-fuel> (Accessed: 19 March 2024).

Full reference for Desk research

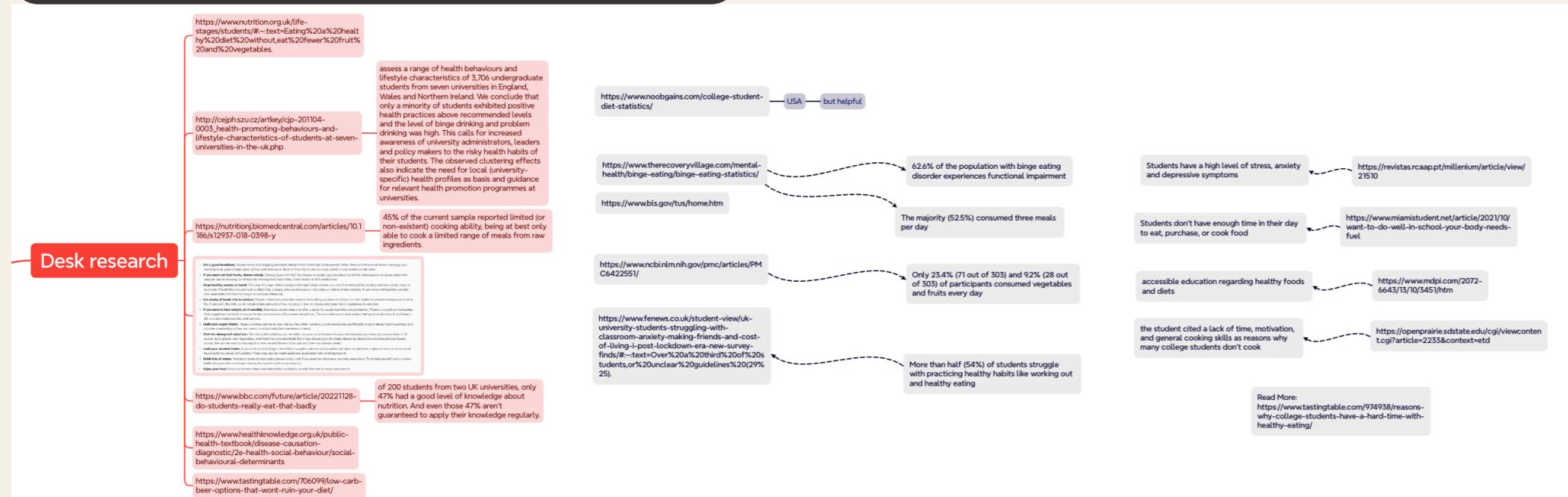


Illustration website

[13]: Loose Drawing (no date) ビジネスのフリーイラスト素材一覧 | 商用可 . Available at: <https://loosedrawing.com/tag/business/?p=12> (Accessed: 19 March 2024).



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