

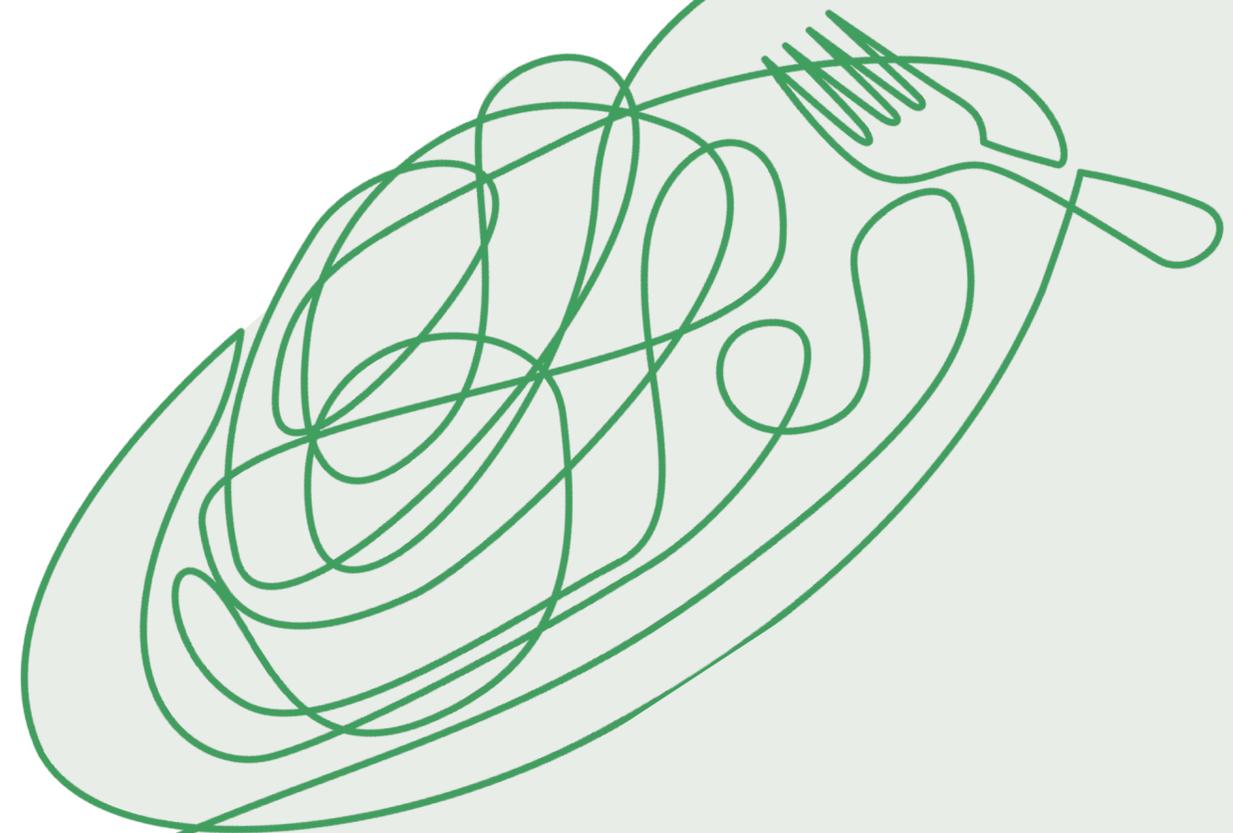
Project 1

MataMeal

A mobile app designed to improve food access for CSUN students

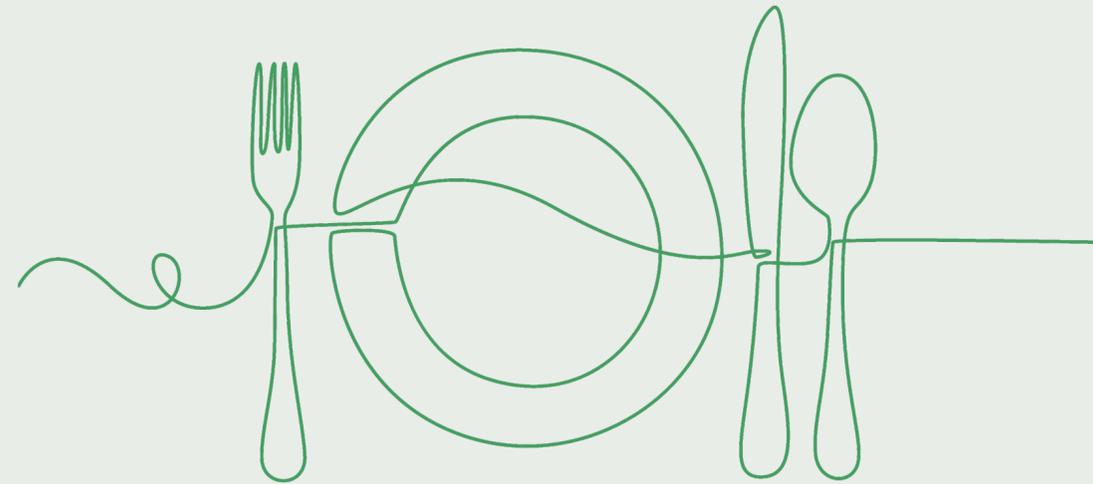
Ryan Cabanza

ART 358 UX/UI



Agenda

- i Overview
- ii Problem & Hypothesis Statements
- iii Research Data
- iv Personas
- v Empathy Map
- vi Competitive Analysis
- vii User Flow
- viii Wireframes
- ix Prototype
- x User Testing
- xi Next Steps
- xii Closing



Overview

How might we make it easier for students to discover and choose dining options on/near campus?

Problem Statement

Ethan, a student athlete, **needs a way to** locate nutritious food options quickly **because** his practice schedule leaves little time to search for meals.

Hypothesis

We believe that by creating an app that allows students to pre-order meals, discover nearby eateries, and connect with food resources, **it will lessen** the stress maintaining a healthy eating routine while balancing busy schedules. **We will know this to be true when we see** students regularly use the app to plan meals and locate food options that meet their needs.

Research

- i. Attitudinal Interview
- ii. Survey
- iii. Contextual Inquiry
- iv. Evaluative Research



Attitudinal Interview

Participants



Agra Arachchi
Psychology Major

Can spend 8+ hours on campus with long breaks to get food



Ryan Daeenejad
History Major

Balancing between student-teaching and attending classes, only has short intervals to get food



Keyla Ramirez
Psychology Major

First-time transfer student with limited knowledge on the available food options on campus

Attitudinal Interview

Qualitative Questions

1 As a student, how would you describe your ability to maintain a healthy eating routine?

2 Do you feel your dietary needs or preferences are represented by the available food options on campus?

3 How do you feel about the variety of food options that are directly on campus compared to those nearby?

4 Can you tell me about a time when you felt satisfied, or dissatisfied, with the quality of food you had on campus?

5 Can you share an experience when obtaining food on campus was either especially convenient or frustrating?

6 When you're looking for food, what factors matter most to you? (e.g. price, convenience, study environment, dietary options)

Question 1

As a student, how would you describe your ability to maintain a healthy eating routine?

Agra

I would say, maintaining a healthy eating schedule is a lot more difficult. One thing I want to look into is meal prepping so that it can be easier to track my calories throughout the day and be mindful of what I'm actually eating. I feel like, if I'm not doing that and just eating whatever is around campus, it's easier to forget.

Ryan

I'd say it's a bit difficult. I have a big chunk of time where I'm either in class or driving, so I kind of just grab what I can get, and then afterwards I try to eat a little better.

Keyla

It's definitely difficult—like very very difficult—because as a student you can be balancing a full-time schedule, and you have work, family responsibilities, and all that stuff, I think you can definitely get lost to remember to eat. Also school gives me a lot of anxiety, and one of the symptoms from my anxiety is that I get nauseous and I can't eat.

Question 2

Do you feel your dietary needs or preferences are represented by the available food options on campus?

Agra

I'd say the food options here are pretty vast. I think there's a decent amount of representation for different countries and dietary needs. For example, Halal Shack is a diverse option with a good amount of protein and vegetables without being overly high in calories. There's a wide range out there.

Ryan

Yes and no. It honestly depends where on campus I am, because I usually go to the Mercados around to grab a quick snack. They don't always carry the same thing. For example, the bookstore complex has more of what I prefer compared to the one at Arbor Grill, but I'm always closer to the Arbor Grill, so I often sacrifice preference for convenience.

Keyla

Just because I'm not vegetarian, I'm not vegan, I can eat anything, and I'm not allergic to anything, I feel like anything that's on campus is pretty accessible to me. But that might not be the case for everyone.

Question 3

How do you feel about the variety of food options that are directly on campus compared to those nearby?

Agra

I would say that CSUN actually has a pretty wide selection compared to the areas nearby. At least the areas I frequent, the majority of them are Korean restaurants, with some cafes, and then maybe a burger joint here and there. At CSUN, I think the representation is much more diverse—you got Mexican options, halal food, sushi, there's more that I'm forgetting.

Ryan

I think the ones on campus are fairly simple but they aren't bad. There's the Arbor Grill, the Mercados, Panda Express, El Pollo Loco, and the acai bowl thing near the SRC. So like, it's not bad, but I think there is definitely a lot more variety immediately around campus. Like, a 5 minute walk can get you banh mi, which you can't get on campus.

Keyla

I think the food options on campus are pretty good based on what I've seen so far. Drink-wise, maybe not the greatest, just because there isn't much of a variety of drink options aside from the Freudian Sip—and even then I hear their options aren't the best. I like to drink coffee and sweet drinks, so drink-wise, I'd prefer to go off campus.

Question 4

Can you tell me about a time when you felt satisfied, or dissatisfied, with the quality of food you had on campus?

Agra

For a time I was satisfied, there's one spot at the Sierra Center that serves hot and ready meals that are pretty good, cheap, and quick to pick up. The quality of rice and chicken is surprisingly good and the portion sizes are great for what I paid for.

Ryan

Yesterday, I was really hungry and I got out of class early so I went to Arbor Grill to grab some food but turned away after looking at some of the prices. I ended up just walking around the Mercado and grabbing a bag of popcorn and some candy that didn't really satisfy me. Plus, I knew I could get a much better meal for the same price as the options at Arbor if I were to leave campus.

Keyla

I feel like this one isn't applicable to me because I haven't had the chance to actually eat anything on campus yet. For context, this is like my sixth day on campus. There was one time I got free pizza from my department. That was fun because it was a welcoming environment, the pizza was good—and it was free—and that's a major thing.

Question 5

Can you share an experience when obtaining food on campus was either especially convenient or frustrating?

Agra

There's actually this app called Boost where you can pre-order foods from the different eateries on campus. So let's say you're on a time crunch, you can order something on the app and have it ready. The only downside is that they don't always have the full menu available on the app. It's still a new app, there's definitely things that can be fixed about it.

Ryan

I had a class in the lecture halls by the Soraya, so usually after class—you know, 40 feet away is the bookstore complex—so I'd go to Panda Express everyday. So that was pretty convenient, very easy, I just had to walk in a straight line.

Keyla

I'll use the pizza story again. It was pretty convenient. It was either my first day or second day, and they sent an e-mail to everyone in my department about the day, time, and location. They also posted posters and flyers, which made the whole process pretty accessible.

Question 6

When looking for food during the school day, what factors matter most to you? (e.g. price, convenience, study environment, dietary options)

Agra

Price is definitely a number 1 factor. Convenience as well—I don't particularly want to wait for my food that much. While I might have a 2–3 hour period between my classes, there's a lot more activities I could be doing. Third is nutritional factor.

Ryan

For me, the top 2 are definitely price and convenience. I'll usually go for something that is closer and cheaper. I think the one that matters least to me is dietary value, just because usually when I'm on campus, I'm not expecting to stay healthy or hit my macros or anything like that. I'm there to eat garbage like a college student.

Keyla

I think the very top thing that I would look for when buying food would be the price just because of financial reasons—I live alone, I support myself, I can't be spending money everyday recklessly. I think the least of my concerns would be dietary constrictions because I can eat anything. I would also probably want a place I can eat and study at the same time, and be close to my classes.

Attitudinal Interview

Key Insights

Maintaining healthy diets:

- every participant noted experiencing difficulty maintaining a healthy diet
- when balancing different responsibilities, it's hard to stay mindful of what you're eating
- “when I'm on campus, I'm not expecting to stay healthy—I'm there to eat garbage like a college student”

Variety on campus vs nearby:

- participants had mixed opinions on food variety; some noting on-campus options being more diverse, others stating the opposite
- perception seems to change depending how frequent or familiar a student is being on campus

Price and convenience:

- all participants have price and convenience being the leading factors that dictate their dining decisions

Survey

Quantitative Questions

1

It's easy for me to maintain a healthy diet while managing my schedule at CSUN?

Strongly Disagree – Strongly Agree

2

How often do you use on-campus food resources? (e.g. dining halls, vending machines, Mercado)

Never – Very Often

3

I am satisfied with the affordability of food options ON campus.

Strongly Disagree – Strongly Agree

4

I am satisfied with the affordability of food options OFF campus. (e.g. restaurants, cafes, fast food)

Strongly Disagree – Strongly Agree

5

What is your typical budget for a single meal on or near campus?

Less than \$5 / \$5-10 / \$11-\$15 / \$16-20 / \$21+ or "I don't buy meals on campus"

Survey

Quantitative Questions

6 My dietary needs are represented by the options on campus.

Strongly Disagree – Strongly Agree

7 On average, how much time do you typically have between classes to get food?

>15 min / 15–30 min / 30–45 min / 45+

8 I tend to choose convenience over eating healthy.

Strongly Disagree – Strongly Agree

9

I am informed about the food resources available to CSUN students. (e.g. weekly farmers market, student discounts, free food locations, summer meal programs, CalFresh)

Strongly Disagree – Strongly Agree

10

Which of the following factors are important to you when choosing a dining option near campus? (Select all that apply)

Price

Distance from campus

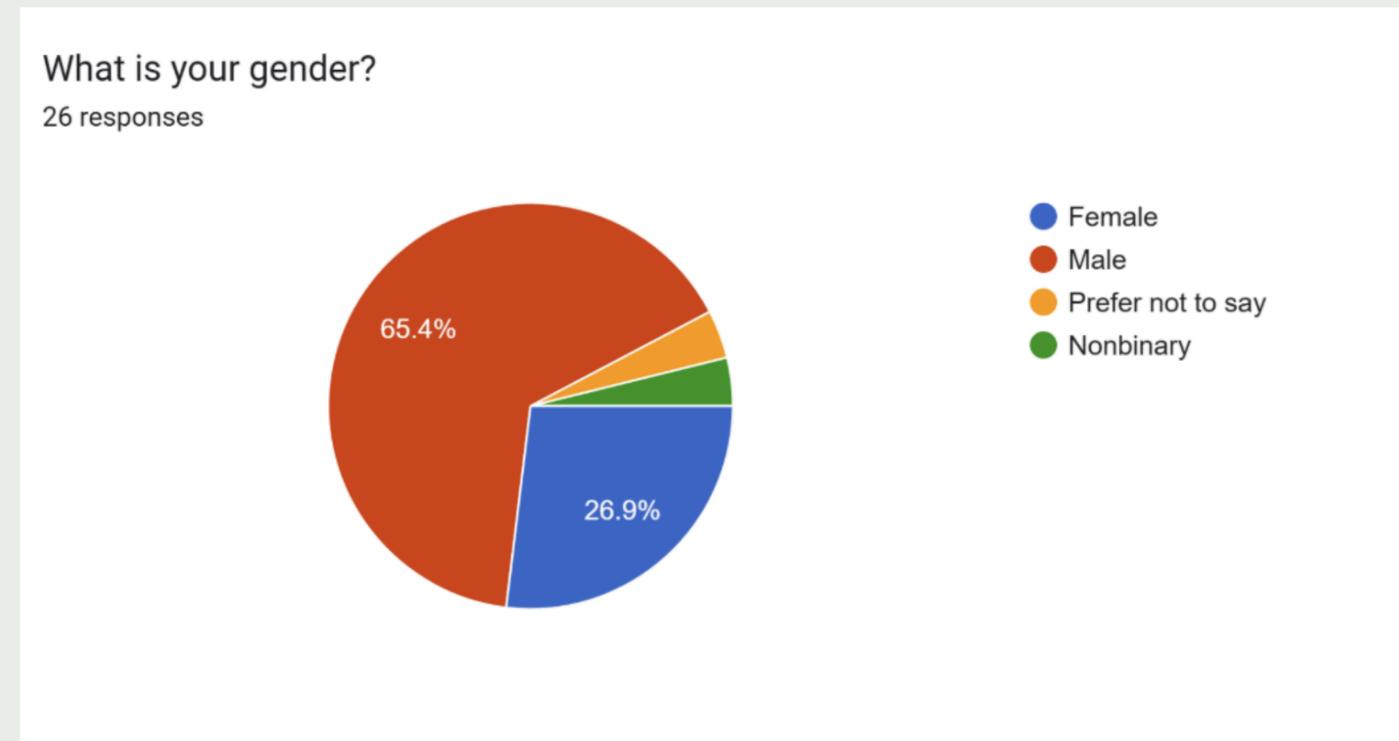
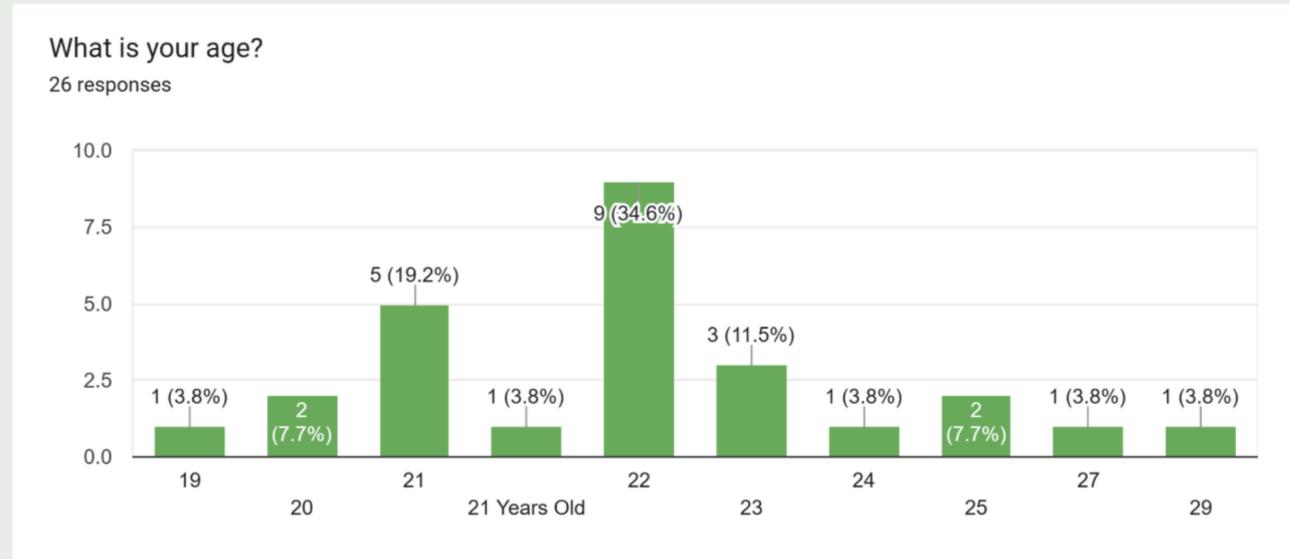
Study environment (WiFi, seating, quietness)

Social space (is it a place I can dine with groups)

Health and dietary options

Survey Results

Demographics

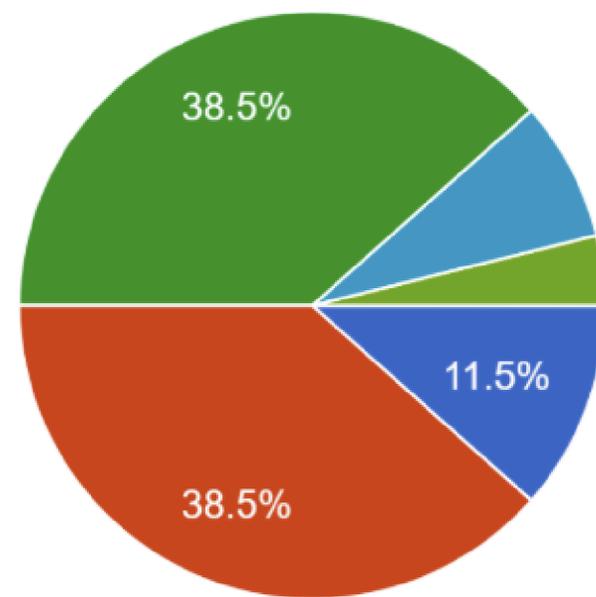


Survey Results

Demographics

Which category best describes you?

26 responses



- White (e.g. German, Irish, English, Italian, Polish, French, etc.)
- Hispanic, Latino or Spanish origin (e.g. Mexican or Mexican American, Puerto Rican, etc.)
- Black or African American (e.g. African American, etc.)
- Asian (e.g. Chinese, Filipino, Asian Indian, etc.)
- American Indian or Alaska Native (e.g. Navajo, etc.)
- Middle Eastern or North African (e.g. Lebanese, etc.)
- Native Hawaiian or Other Pacific Islander (e.g. Samoan, etc.)
- mixed

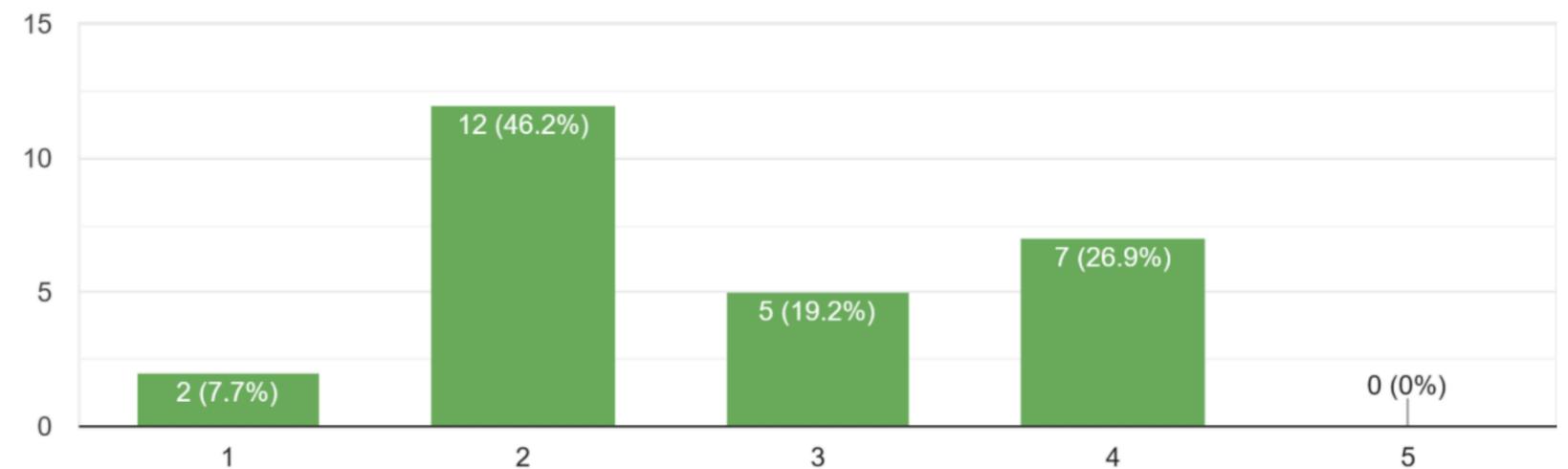
Survey Results

Healthy Dieting

- 53.9% felt it was difficult maintaining a healthy diet
- Zero participants felt confident enough to respond with “Strongly Agree”
- Results are consistent with the attitudes of our interview subjects, as they found it difficult to balance their various responsibilities while eating healthy

It's easy for me to maintain a healthy diet while managing my schedule at CSUN.

26 responses



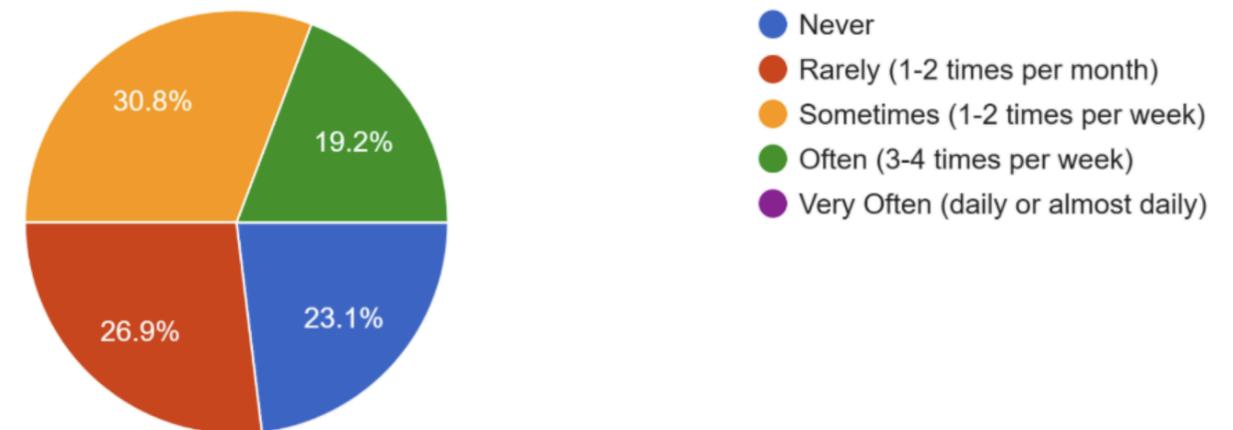
Survey Results

Campus Reliance

- How much an individual relies on campus food options varies between participants
- Zero participants indicated using campus resources daily
- Nearly a quarter of participants indicated never relying on campus resources for food

How often do you use on-campus food resources? (dining halls, vending machines, Mercado, etc.)

26 responses



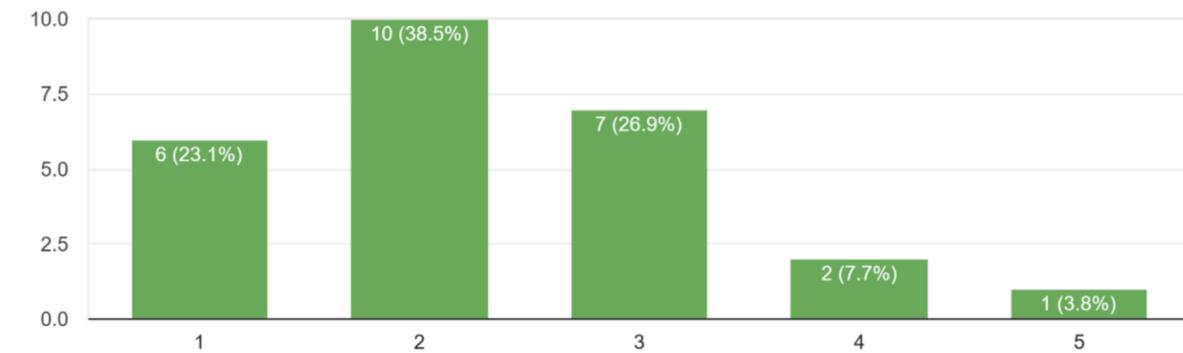
Survey Results

Affordability

- 80.8% had budgets of \$15 or less
- 61.6% were dissatisfied with the pricing of food ON campus
- 46.1% were dissatisfied with the pricing of food OFF campus
- Consistent with interview results, as interviewees often cited dissatisfaction when purchasing an overpriced meal

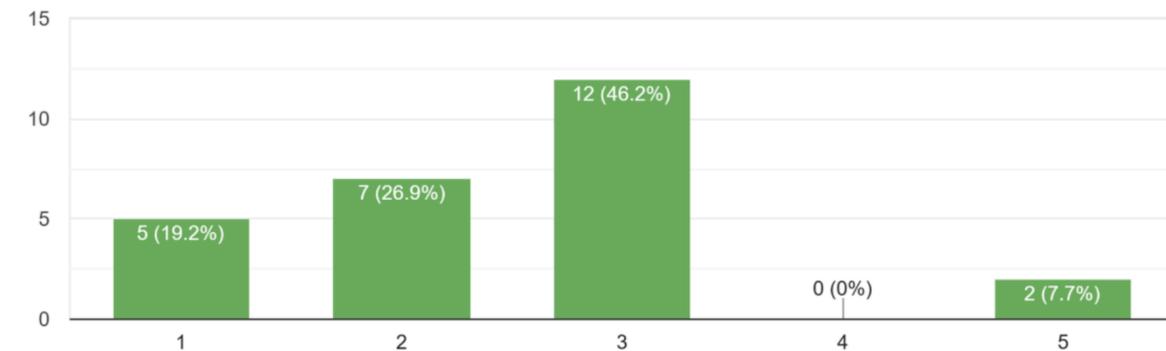
I am satisfied with the affordability of food options ON campus.

26 responses



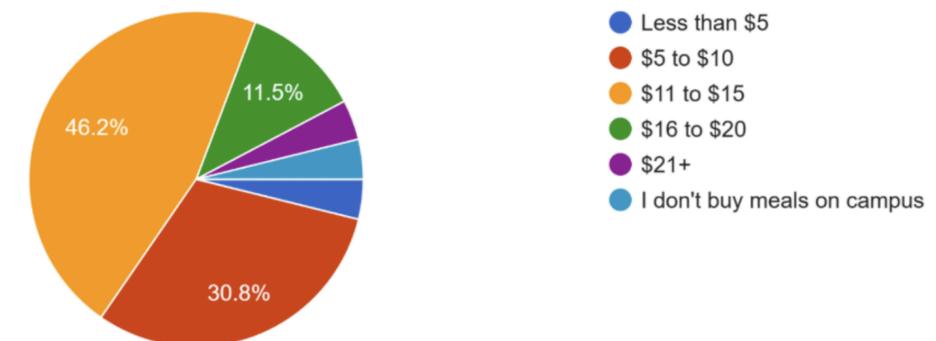
I am satisfied with the affordability of food options OFF campus. (fast food restaurants, cafes, etc.)

26 responses



What is your typical budget for a single meal on or near campus?

26 responses

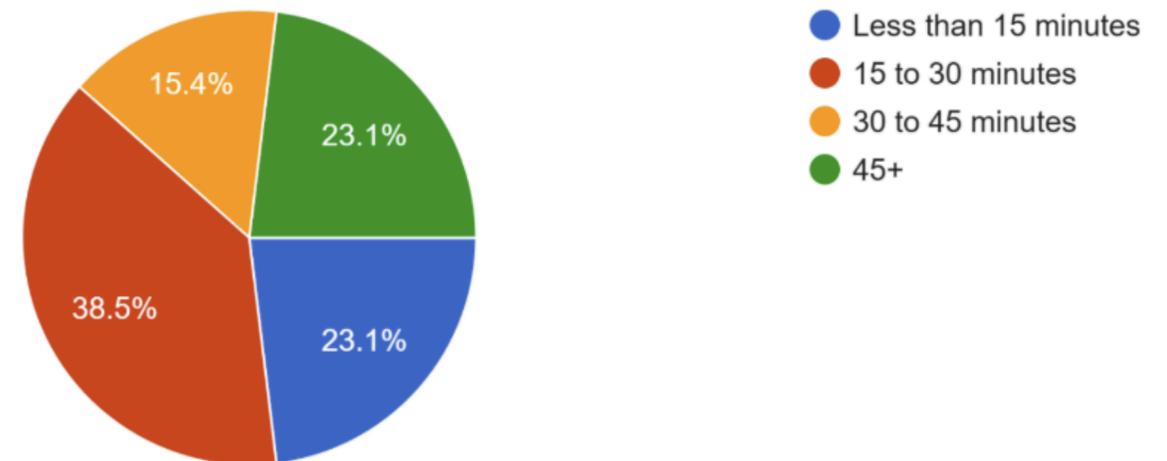


Survey Results

Time Constraints

- Amount of time to obtain food between classes varies between participants

On average, how much time do you typically have between classes to get food?
26 responses



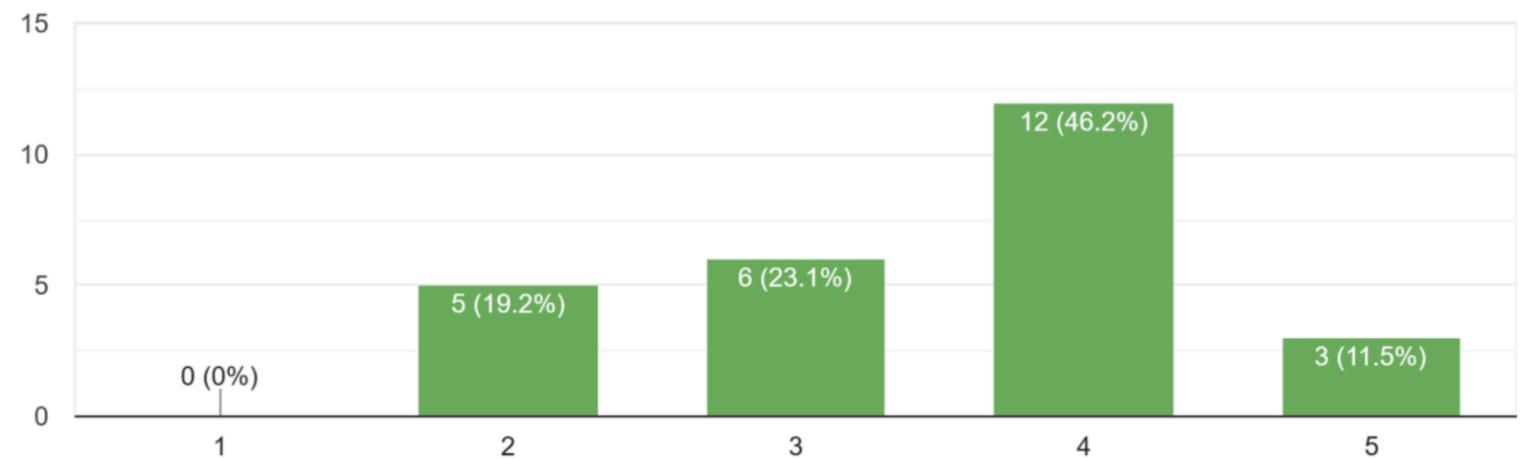
Survey Results

Convenience

- 57.7% felt like they often choose convenience over eating healthy
- Aligns with interview responses, as all interviewees mentioned wanting quicker meals at the sacrifice of health to fit between busy schedules

I tend to choose convenience over eating healthy.

26 responses



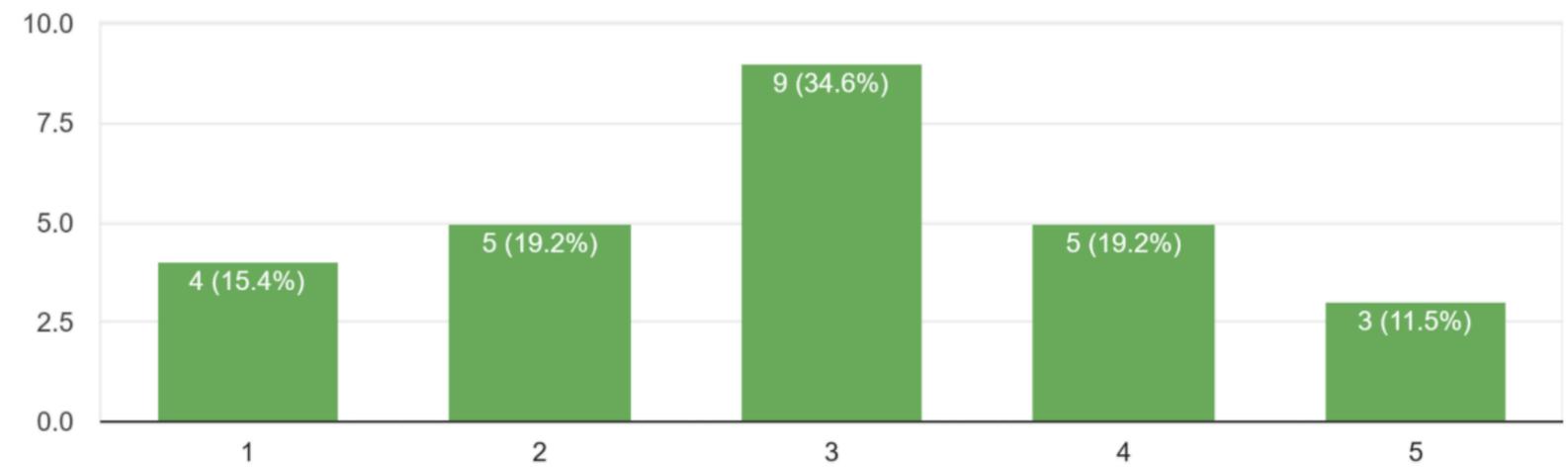
Survey Results

Awareness

- Most feel “neutral” about their level awareness on the available food resources at CSUN

I am informed about the food resources available to CSUN students (weekly farmers market, student discounts, free food locations, summer meal programs, CalFresh, etc.)

26 responses



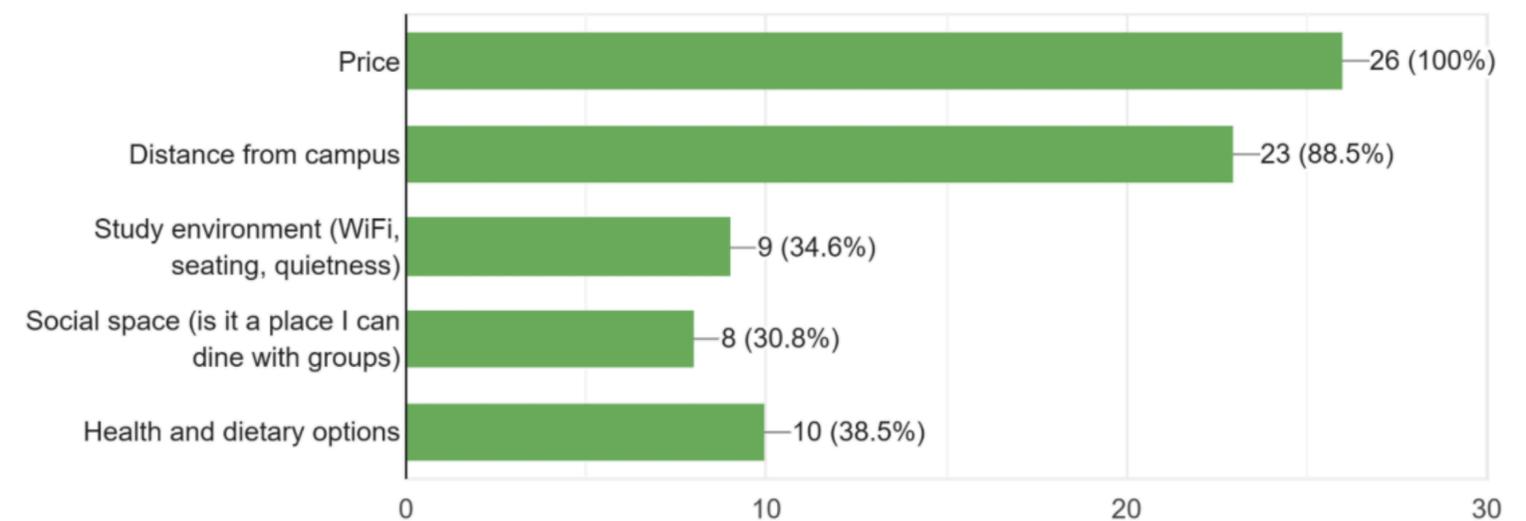
Survey Results

Decision Factors

- All participants had price being a leading factor that dictates their dining decisions
- This aligns with previous data and interview responses, as students often have limited financial flexibility due to tuition payments, housing costs, etc.
- “Distance from campus” followed closely after at 88.5%

Which of the following factors are important to you when choosing a dining option near campus?
(Select all that apply)

26 responses



Contextual Inquiry

I observed Edgar, a Computer Engineering major and first-time transfer student attempt to locate the various free food locations (8 locations) offered at CSUN.

Process Followed

- The exercise started with Edgar launching the CSUN 3D Interactive Map.
- Without using search functions or outside resources, Edgar was tasked to locate as many free food locations as he could.
- At the end of the exercise, Edgar successfully located 1 out of the 8 locations. (Laurel Hall)

Participant's Feedback

When asked about the process, Edgar was surprised by the amount of free food resources that were available to CSUN students. As a first-time transfer student, he mentioned having little awareness on these resources prior to the exercise. He noted that he was only successful in locating the food pantry at Laurel Hall because he saw it during his walk to class.

Evaluative Research

Additional Resources

Federal Budget Cuts Are Threatening a Lifeline for Thousands of College Students

Federal cuts are endangering college food pantries, putting student meals, jobs and local food access at risk nationwide.

When College Kids Can't Afford Food

3.8 million college students reported experiencing food insecurity. More than half of these students reported skipping meals or not eating multiple times a day because they couldn't afford food.

Data Synthesis

- i. Personas
- ii. Empathy Map
- iii. Competitive Analysis





Persona 1

Jasmine Lee, 19

“I want to eat healthier, but campus food feels expensive and repetitive.”

Bio

- Sophomore
- Major: Marine Biology
- Lives in dorms, no car
- Vegetarian

Goals

- Access affordable vegetarian meals nearby
- Balance diet with busy class/lab schedule
- Find spaces where she can eat and study comfortably

Habits

- Eats on campus almost daily
- Enjoys studying in cafes with WiFi
- Uses social media to discover new food spots

Pain Points

- Limited vegetarian variety on campus
- Must rely on walking-distance options
- Unaware of food resources available to CSUN students

Persona 2

Marcus Williams, 21

“Between classes, work, and commuting, I barely have time to eat, let alone find healthy food.”

Bio

- Junior
- Major: Mechanical Engineering
- Commutes daily (45 min drive)
- Works part-time

Goals

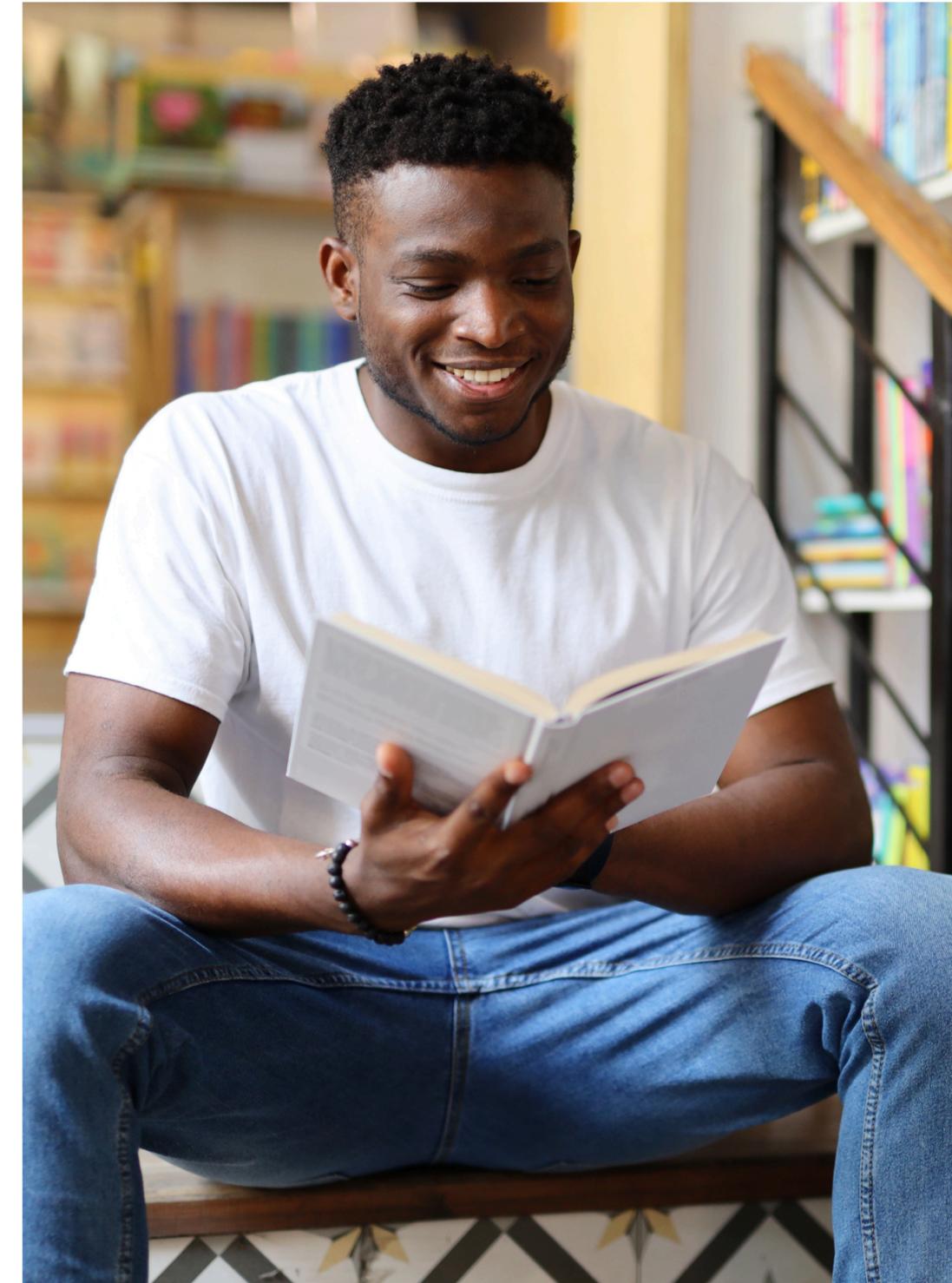
- Maintain energy and focus throughout the day
- Find affordable food that fits into his packed schedule
- Spend less money eating out

Habits

- Often skips breakfast
- Eats fast food 3–4 times a week
- Tries to meal prep but struggles with time

Pain Points

- Limited affordable and healthy options on campus
- Parking makes it inconvenient to leave campus for food
- Feels guilty about relying on junk food when busy



Empathy Map



Says

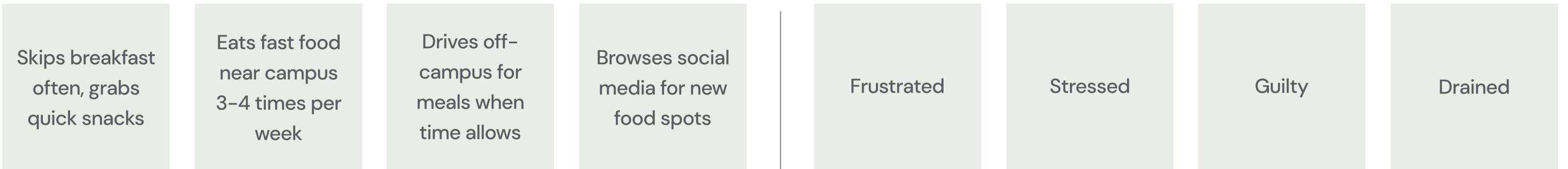
Thinks

Does

Feels



Cambria Hall, 20



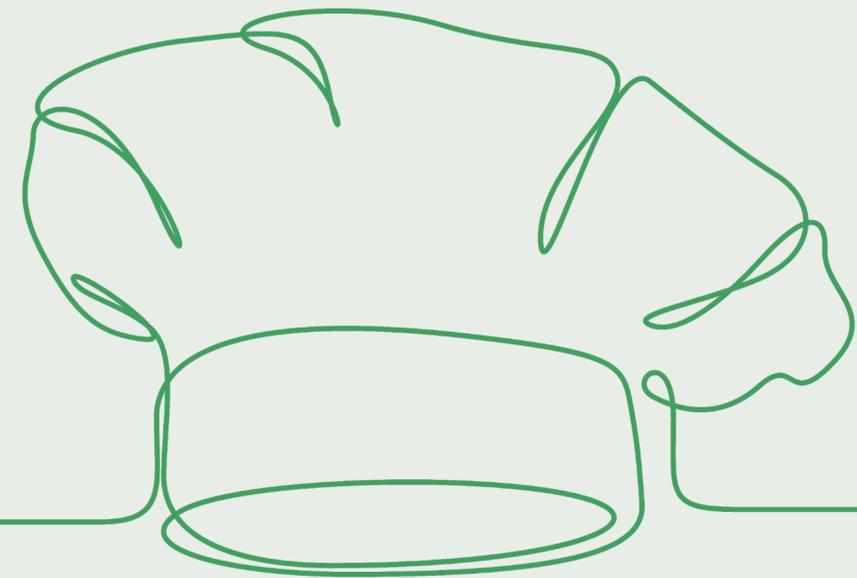
Competitive Analysis



Map locator/Distance Finder	✗	✓	✗
View Menus & Nutritional Information	✓	✓	✗
Pre-Order Meals	✓	✗	✗
Purchase Meal Plans	✗	✓	✗
Free Food Information	✗	✗	✓
Price & Diet Search Filters	✗	✗	✗

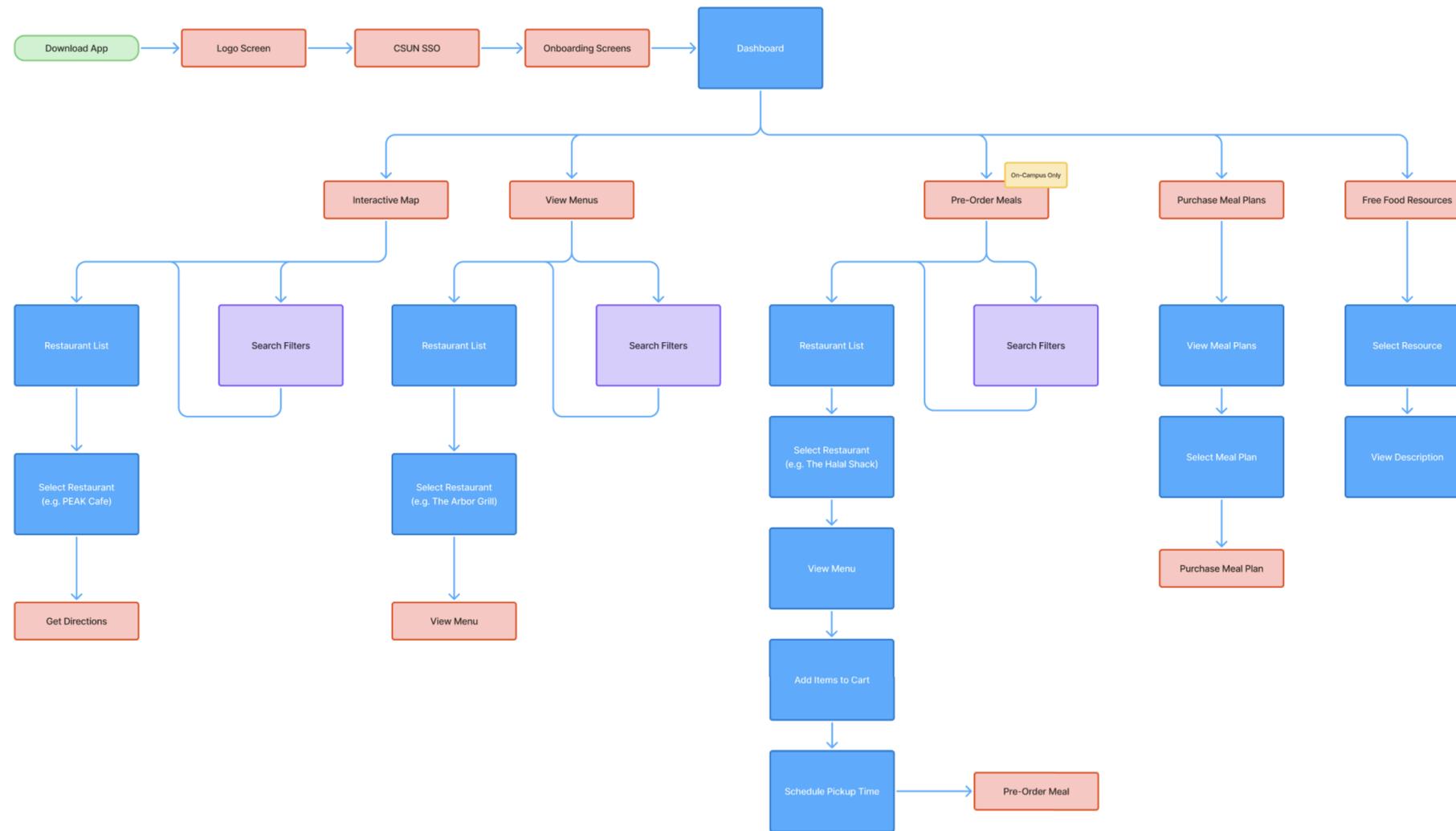
Design Process

- i. User flow
- ii. Wireframes
- iii. Prototype
- iv. User Testing
- v. Next Steps

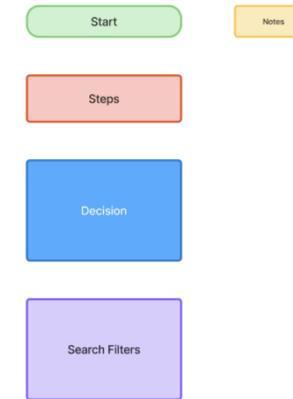


User Flow

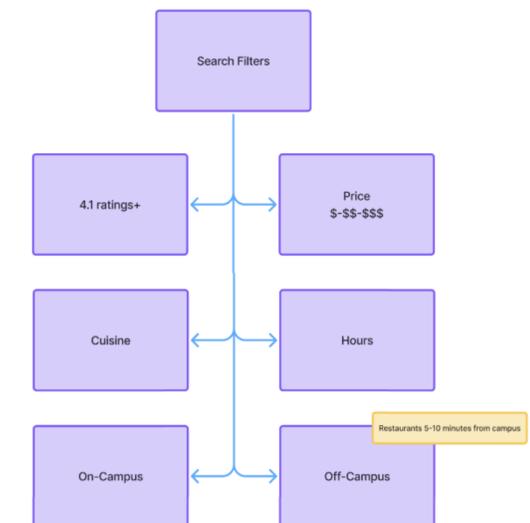
User Flow



Legend



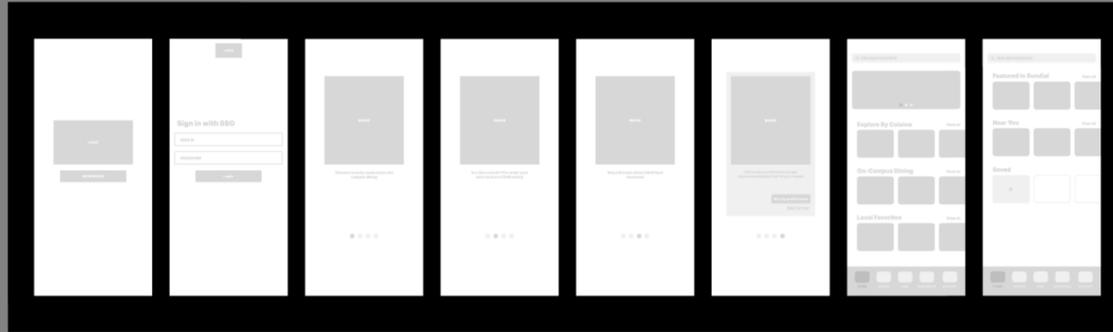
Search Filters



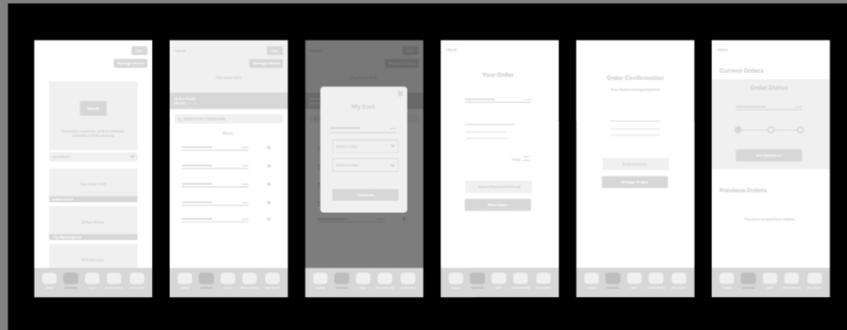
Wireframes

Low-Fidelity

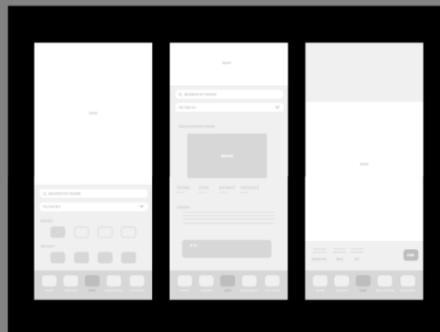
Onboarding & Dashboard



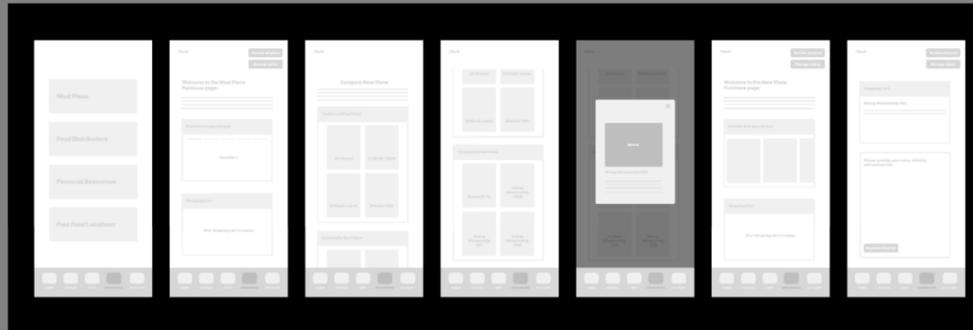
Order



Map



Resources



Wireframes

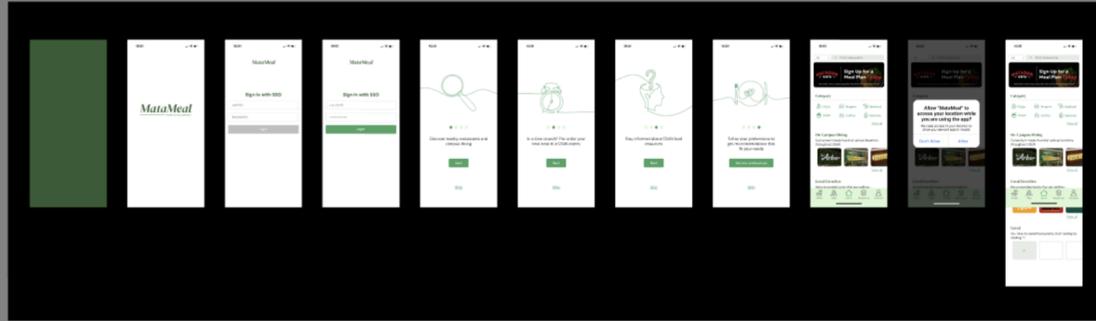
Mid-Fidelity



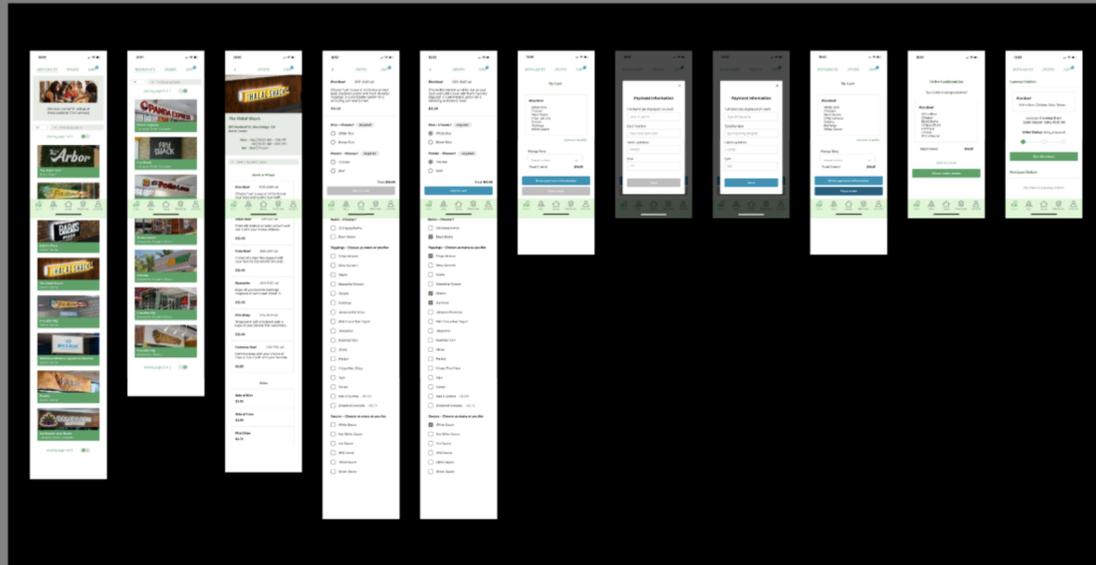
Wireframes

High-Fidelity

Onboarding & Dashboard



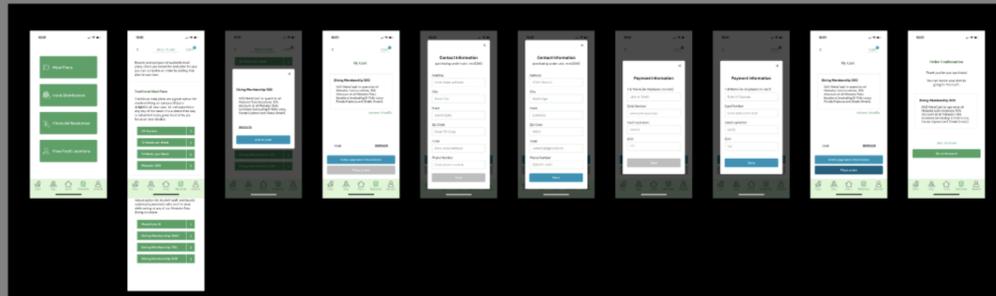
Order



Map



Resources





Prototype

Tap the screen to start

[▶ Link to Prototype](#)

User Testing

Task Execution

5/5

Users were able to order a rice bowl for pickup at the Halal Shack

5/5

Users were able to find directions to Peak Cafe

5/5

Users were able to purchase a meal plan

User Testing

Feedback

“It has the look and feel of a real app.” –Victor De La Cruz

“Navigation was clear and made sense.” –Amy An

“Color scheme is clean and cohesive.” –Ronmark Perez

“I appreciate the up-to-date images.” –Agra Arachchi

Suggestions & Observations

- The Resources page was the weakest visually, with one user suggesting it could be better consolidated as a hamburger icon in the homepage
- Although all users were able to purchase a meal plan, it wasn't immediately obvious where it was located
- Some users placed an order at the Halal Shack by interacting with the On-Campus Dining carousel found in the homepage, while most used the dedicated Order page
- Zero users noticed the meal plan advertisement featured at the top of the homepage
- The Order button slightly shifts on the nav in different pages

Next Steps

- 1 Replace Resources page with hamburger icon
- 2 Fix the positioning of the buttons on the nav bar so that it is consistent between all pages
- 3 Prototype all features
- 4 Integrate functional dropdowns
- 5 Implement a working map

Thank you!