

Project 2: Design Research for Responsive Web

Interaction Design Overview : A

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Interview Questions and Observation Plan

Food Truck Owner Questions

1. **General experience with food trucks**

- How much of your business profit is coming from students?
- Do you like owning a food truck on campus?
- Do you, as owners, do anything special to attract customers?

2. **Information that people seek from food trucks**

- What do you want to share with students online?
- What questions, if any, do students have when they visit their food truck?

3. **Experiences in person at food trucks either on or off CMU Campus**

- How is your experience with students here versus at locations off-campus?

4. **Information people seek on the web about food trucks**

- Is there anything you would like to tell students about the food or your operation hours online?

Student Questions

Customers who like Food Truck questions

Q1: What do you look for in a food truck?

Q2. How do you find these food trucks usually?

Q3. Do you guys go often? Or like once in a while?

Q4. Any favorite spots? Or favorite food trucks you particularly like?

Q5. Why food trucks specifically?

Q6. Have you ever had a particularly bad experience with a food truck once or like a really good experience once? If so, can you talk a little about that?

Potential customer questions

Q1: Why don't you enjoy going to food trucks?

- Is it something specifically about food trucks? Is it something else?

Q2: If you had to go to a food truck, how do you think you would find information about it?

Q3: How would you evaluate whether you want to eat here or not?



Interview Notes

Interview #1

Greek Food Owner Interview

Food Truck on Margaret Morrison Street

Interviewer: Pavi Bhattar

Owner Name: Safwan Mikhail

This interview ended up being more unstructured than the specific questions I had planned out. This was because the interviewee had a lot of his own thoughts that he wanted to keep talking about. His general input was frustration towards the university. Notes from his opinions during the interview below

- Wants students to keep coming and eating his food
- The food served at this food truck is healthy, homemade food
- We are in business since 1993 and serving since 1988
- Wants to thank his customers, and is happy that they are nice customers
- A lot of people are buying from cars who sell food from the back of their truck, who do not have a license or permit
- Those cars stay there whole day
- It is a hazard for person eating that food, bacteria grows
- Food temperature is unhealthy in those cars
- His food truck cannot move (mobilize), and once it gets too cold there are little customers from December to February
- He would like if he can mobilize food truck
- Have an online, mobile chat potentially so he can advertise updates on his food truck

Interview #2 Notes

Carnegie Mellon University student

Interviewer: Pavi Bhattar

Q1: How often do you visit food trucks?

A: I have never visited the food trucks on campus. I lived in Stever freshmen year so I did not even know these food trucks were on-campus because they are not advertised.

Q2: Any favorite spots? Or favorite food trucks you particularly like?

A: I visit the food trucks on the University of Pittsburgh's campus.

Follow up: What kind of food they provide?

A: India on Wheels

Follow up: What's your favorite cuisine there?

A: I only eat Indian food there.

Follow up: Do they always refresh their menu?

A: I am not sure if they refresh their menu because I do not visit often enough to notice. If they do, I do not have any way of knowing.

Q3. What makes you visit food trucks often?

A: I visit food trucks when I am too lazy to make my own food and go grocery shopping, I have exhausted on-campus food options, or I want something cheap and fast to eat.

Q4. Have you ever had a particularly bad experience with a food truck once or like a really good experience once?

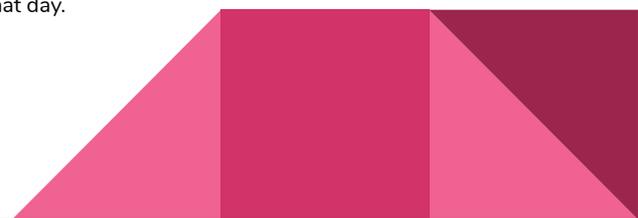
A: Most how I feel about my experience with a food truck is based on the food, and whether or not I like the quality of it. Food trucks are meant to be fast and cheap, so I care less about the service per say. My experiences with the Indian food truck in Oakland has mainly been average. The food is good, but not amazing. I guess my experience would be better though if there was more information about the food truck online. Usually, I just have to be in the area to know if the food truck is open that day.

Q5. Did you look up the food truck on the web before going?

A: No, I usually just assume and hope it is open on a school day.

Q6. What kind of information do you expect to get from the website?

A: Location, open hours, menu and reviews, and any student specials.



Interview #3 Notes

India-on-Wheels Owner Interview

Interviewer: Ziqi Dong

Information that people seek from food trucks

Q: What do you want to share with students online?

A: Extended hours, out of consideration, getting old can't work too much

Q: What questions, if any, do students have when they visit their food truck?

A: What kinds of food that students are seeking from the food trucks

Experiences in person at food trucks either on or off CMU

Campus

Q: How is your experience with students here versus at locations off-campus?

A: Stationary vending license city has permit here, cannot move. Just provide food on campus.

Information people seek on the web about food trucks

Q: Is there anything you would like to tell students about the food or your operation hours online?

A: No specific things, just open hours and specials.

General experience with food trucks

Q: How much of your business profit is coming from students?

A: Was better before, now slowing down because of competition and car vendors

Q: Do you like owning a food truck on campus?

A : Yes.

Q: Do you, as owners, do anything special to attract customers? (e.g. do they do any online publication or advertising on social media already, and how is that working for them)

A: No, and they seem not interested in doing "advertising" to attract customers.

Interview #4 Notes

Interviewed 2 CMU students who like food trucks but don't go frequently

Interviewers: Pooja Casula & Anant Agrawal

Observations:

Students didn't really look online for information about food trucks

- Unless they knew about it earlier, then they would follow it

Physical attributes of food truck seem to be very important to students

- How professional it looks
- How clean it looks
 - "Cleanliness. I guess if it looks professional...and well done then I know I'll be okay eating there"

Students think of food trucks offering a "unique" experience

- Adds to the appeal of eating there

Price of food truck also adds to appeal of eating there

Part of Transcript

Q. How do you find these food trucks usually?

Silence*

Like is it by recommendation, or you just look online...? Or do you see it while walking down the street?

Person 2: I'll see it online if I'm like going to an event that's like catering from them

Q. Why food trucks specifically? Is there anything? Like you said the food was better, but is there any other thing that kind of makes it attractive? Like price or something else?

Person 1: Its like unique almost

Person 2: Price I think and some of them rotate their menus so yeah

Q. Do you guys look up a food truck on the web before you go or anything?

Person 1: Nah we kind of wing it

Person 2: If I know about the food truck then I'll follow it

Follow up: What kind of information do you look for?

Where they are, what their menu is, what kind of cuisine

Interview #5 Notes

Interviewed 3 CMU students who do not frequent food trucks

Interviewers: Pooja Casula & Anant Agrawal

Observations

- Students wouldn't be against going to a food truck, just never really found a reason to.
- Location of food trucks seemed to be the biggest reason for why they never went to the ones located on Margaret Morrison
 - Person 3: "Umm well... so basically for lunch. It would be for lunch. Uh and I would have classes and I would just want to pick something up from the UC and then go back to class and so the food trucks that I know of are by Maggie Mo., not near where my classes are...uh"
- Cleanliness and physical look of food truck impacted perception
 - Person 1: I think hygiene is also a big thing. Like if I look at a food truck and just see like...(Person 2 nodding along: "Oh yeah thats true ") maybe not the cleanest food in the world then I don't think I would go there. And some food trucks give off that they are doing their best to make sure that they maintain a clean kitchen. And other ones, not as much. So thats probably a big factor too."

Part of Transcript

Q: How often do you visit food trucks?

Person 1: Not often

Follow up: Why do think that is?

Person 1: I guess I just kind of never started. So I wouldn't be against eating at food trucks I just.. I always ate on campus at the restaurants. Yeah.

Follow up: Ever the CMU food trucks?

Person 1: Yeah no. I guess it's like habit.

(Towards Person 2) Same with you as well?

Person 2: Yeah.

(Towards Person 3) What about you?

Person 3: Yeah no I've never been to a food truck

Q: So its not anything specifically negative about the experience its just not as convenient and not what you're used to

Person 3: Yeah.. I think if I was there and it was lunch and I needed to eat and I was like right there next to the field and there was a food truck that was open I would 100% try it.

Q: What kind of information would you look for in a food truck or how would you evaluate whether this was something you want to eat at or not?

Person 3: I'm not very picky..so.. I would just definitely... I mean I'm vegetarian thats the only restriction I have..and if it looks good then I would just go for it, try it out.

Interview #6 Notes

Interviewed CMU student who visits food trucks frequently

Interviewer: Ziqi Dong

Q1: How often do you visit food trucks?

A: more than four times per week

Q2: Any favorite spots? Or favorite food trucks you particularly like?

A: Yeah, I always go to the food truck near West Wing, because it's near my dorm and classrooms.

Follow up: What kind of food they provide?

A: Lots of choices, like Chinese food, Indian food, salad, etc.

Follow up: What's your favorite cuisine there?

A: Oh, I guess Indian food? curry chicken with rice. Delicious!

Follow up: Do they always refresh their menu?

A: not always, but they did refresh menu, maybe once 3 months? But they provide lots of choices, which is good. If they can change the menu per month, or even per week, that will be better!

Q3. What makes you visit food trucks often?

A: cheap and save time. I don't have time to go to UC or NSH to order, wait and sit down to have lunch sometimes, so I usually grab some food from food trucks and eat on my way to classes. By the way, it's much cheaper than restaurant.

Q4. Have you ever had a particularly bad experience with a food truck once or like a really good experience once?

A: yeah. I remembered one day I'm super hungry, but I only have 15 minutes to get lunch. I went to food truck, but I don't know why the line was very long that day, and I waited for 10 minutes to order. What's worse, my favorite curry chicken sold out... hope they can provide pre-order service and prepare enough food in the future.

Q5. Did you look up the food truck on the web before going?

A: no. I think they don't have website? I mean if there is a food truck website or something, I'll definitely follow it.

Q6. What kind of information do you expect to get from the website?

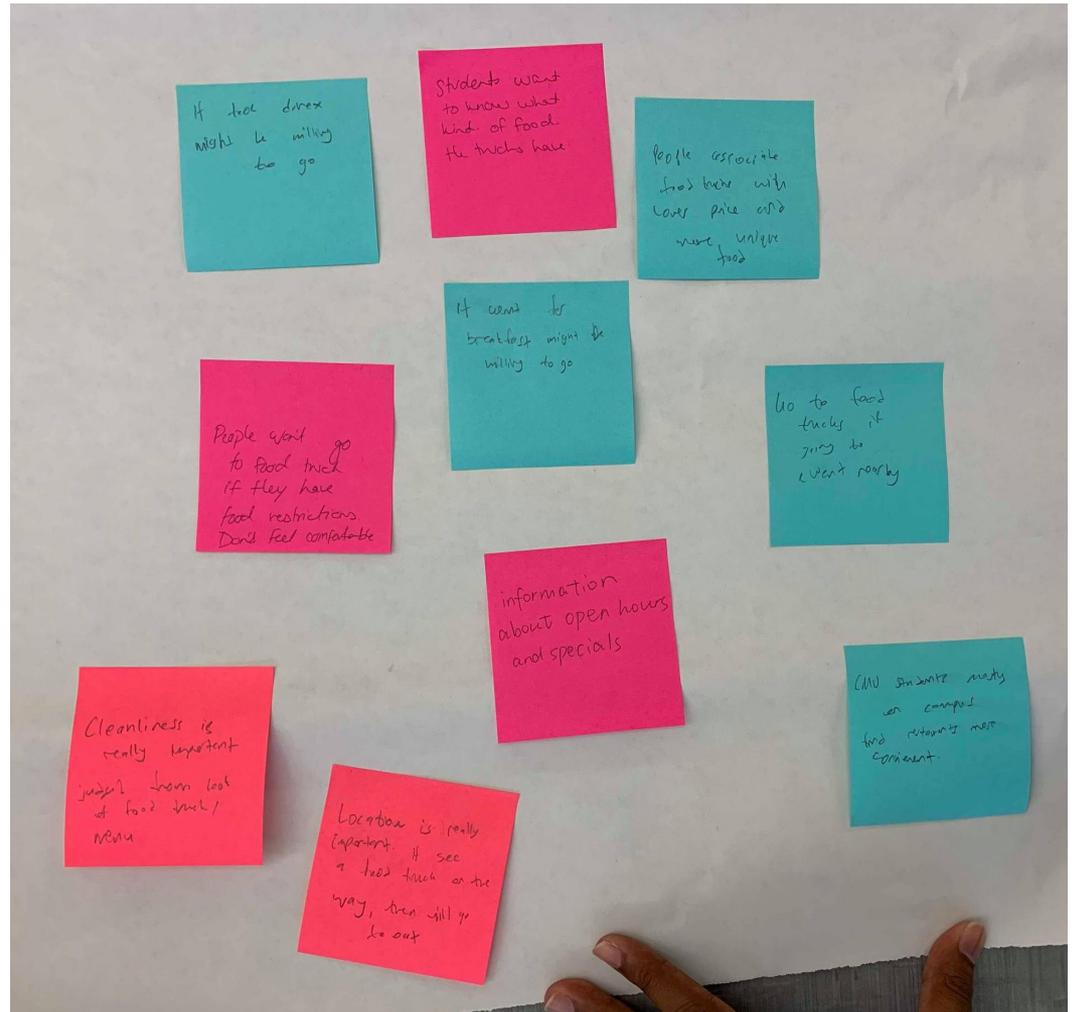
A: location, open hours, menu and review. Oh, if I can pre-order or have student coupon, it will be great!

Affinity Diagram Documentation

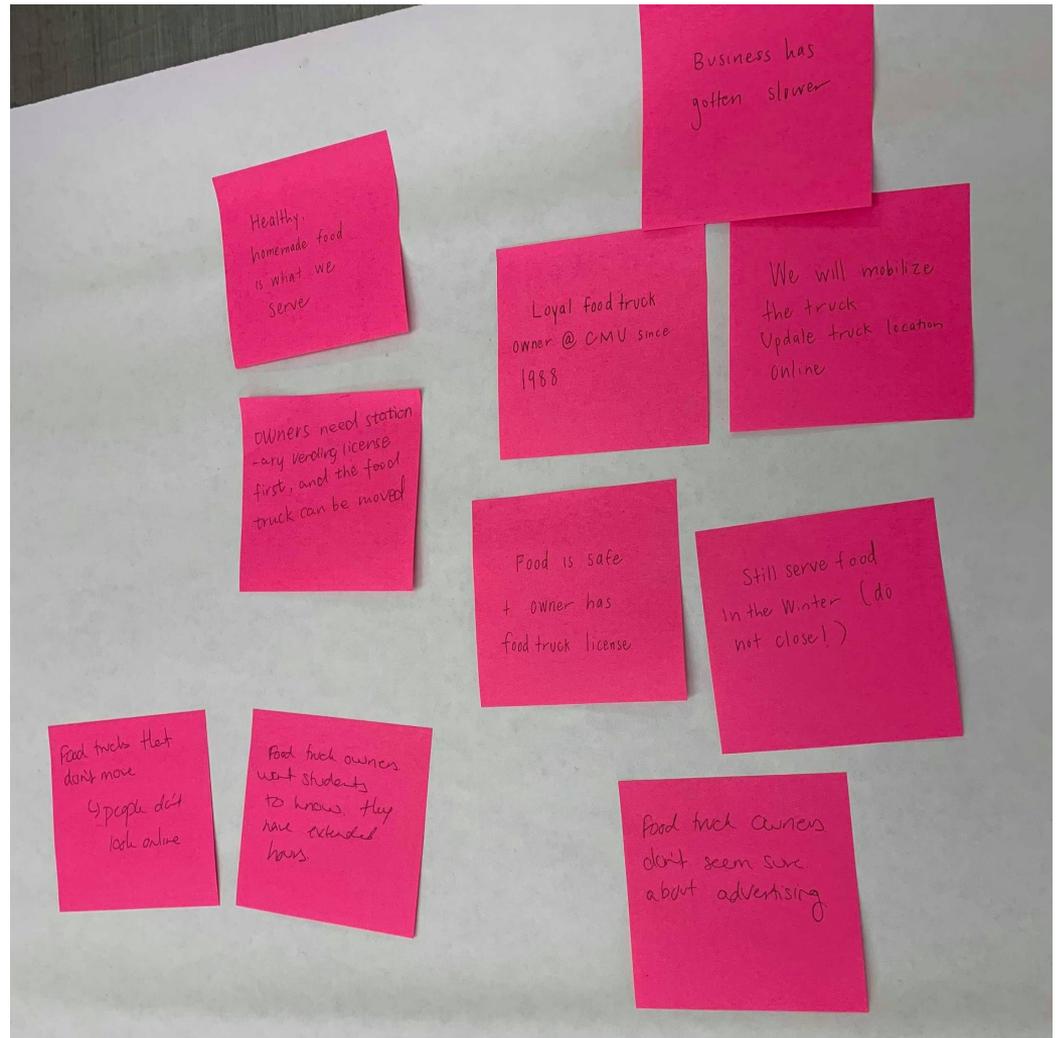
For customers, they want to get the food truck information about open hours, menu, specials and location. They choose food truck mainly because of the good price and convenience. Typically, they prefer food trucks that are near dorms or classrooms.

For owners, their main goal is to attract more customers, so they want to know the best parking locations and the food types that customers like.

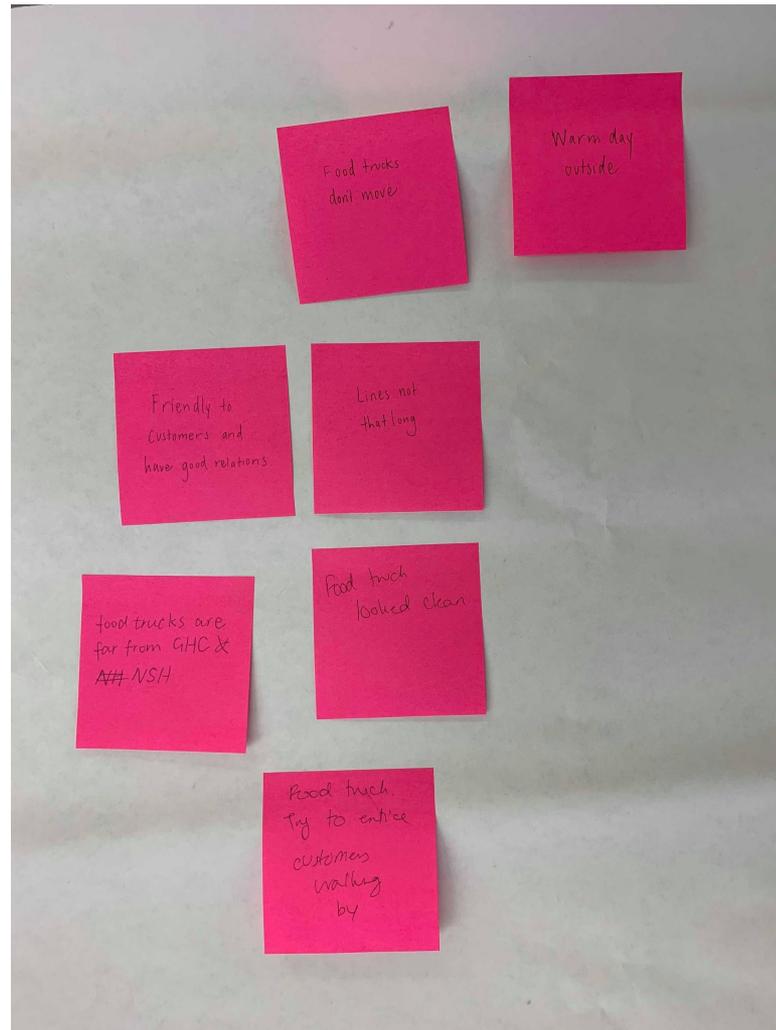
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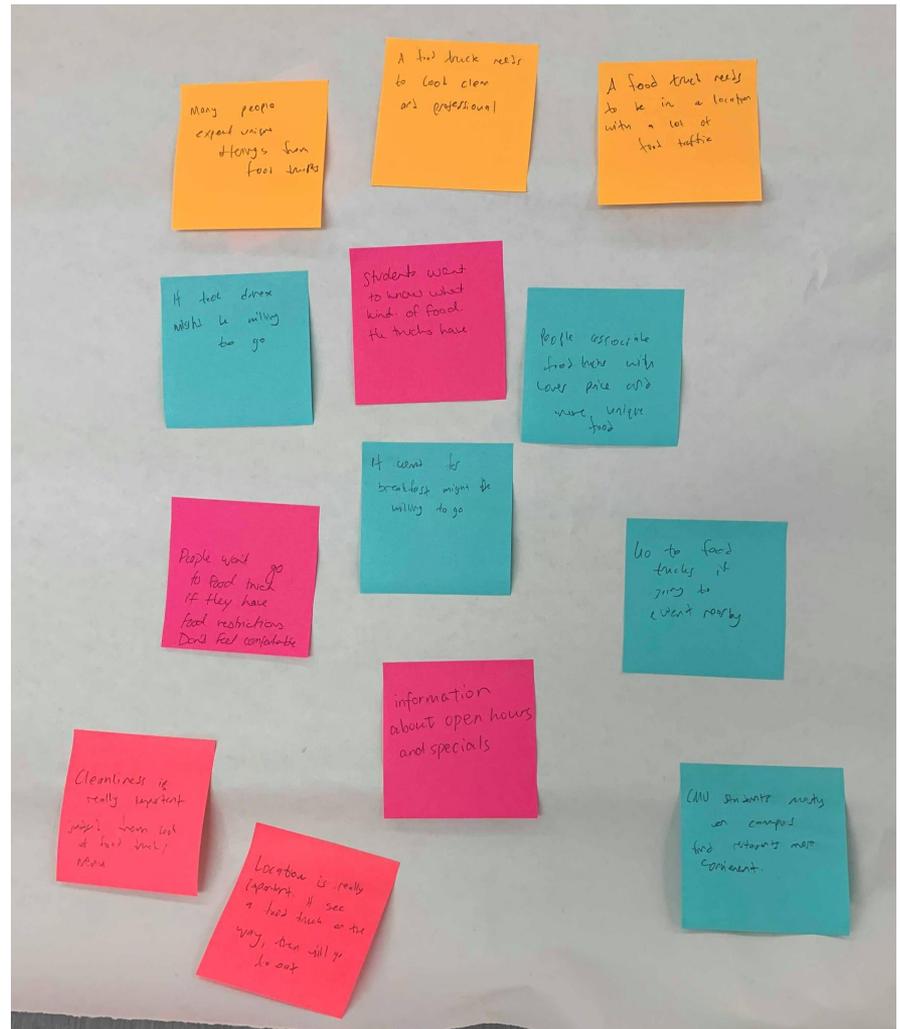
Food Truck Owner Insights



Food Truck Owner Insights (continued)



Further insights from food truck owner and student interviews



Research Findings Summary

Our live-site interviews allowed us to get a real-life understanding of keen observations about the food truck space in Pittsburgh and on-campus. This led us to deduce the problems within this industry space. Focusing on the interactions between the stakeholders, specifically employees and owners and food truck customers, we observed that on a warm, sunny day at prime lunchtime at noon, there was a severe lack of customers at the food trucks on Margaret Morrison Street. The food trucks looked clean, but old in their manner. These trucks have been serving Carnegie Mellon University for many years. Food truck employees were trying to call students walking by, asking them if they wanted anything.

During our interviews with solely single stakeholders, primarily focusing on customers of the food trucks (or students on-campus), they seemed emotionless about the food trucks. Some students ate at these food trucks, but were not regular customers, while some had never even visited that area of campus.

Insights summary with pain points and opportunities

Based on our interviews with food truck customers, non-customers and food-truck owners, our group pinpointed certain problems within the business industry here on-campus, as well as keen observations. At the food trucks, business was slow during prime lunch-time hours at noon on a sunny, warm school day. Although campus was lively, where the food trucks sit near Margaret Morrison Apartments and Donner, was particularly less bustling and low-traffic. From the owners perspective, they acknowledge that business is a bit slower, students seem to forget that they still operate normal business hours during the winter and that competition, in the form of unlicensed vendors distributing food from the back of their car parked at high-traffic areas on campus, are stealing their customers. Carnegie Mellon University forces them to go through strict license checks and currently has restricted them to be non-mobilizing food trucks.

From the perspective of passing by students on-campus and current customers of the food trucks, the location of these trucks on campus seemed to be the most prominent issue for them. No lecture halls or classrooms are in the area that these food trucks are parked. They are in the back of campus where upperclassmen rarely visit, which are the target customers really since first-year students are on a meal plan. The food trucks need to be conveniently near class areas, or essentially in high-traffic areas on campus.

Personas



Persona #1: Zachary Wilson

"I wouldn't mind going to the food trucks, but it's just too far away and I'm not sure its worth it"

Age: 20

Occupation: Student

Location: Carnegie Mellon University, Pittsburgh, Pennsylvania

Zachary is a student at CMU who doesn't eat at food trucks. He's not against food trucks, but just doesn't think believe that they gluten-free options or are very careful about preparing gluten-free food. He also feels like it would take too much time to go all the way to the food trucks, located across campus, in order to quickly pick up food before his next class.

Needs:

- Needs a quick bite to eat
- Needs to be conveniently near classes
- Needs to have better food selection than his other options
-

Deal Killers:

- Don't serve gluten-free food
- Don't keep a clean kitchen
- Too much of a walk to get food between classes



Persona #2: Felicia Peters

"I love food trucks, but sometimes it's a real pain to find them"

Felicia Peters is a student at Carnegie Mellon who enjoys going to food trucks. She likes the affordability of food trucks and the variety of cuisines and dishes they offer their customers. She finds out all her information about food trucks either through word of mouth or by physically seeing them. She feels like she is missing out on a lot of good food trucks around Pittsburgh and wants to be able to find them on her own.

Age: 21

Occupation: Student

Location: Carnegie Mellon University, Pittsburgh, Pennsylvania

Needs:

- To be more unique than the restaurants around
- Have a more competitive price
- Look clean and professional from the outside

Deal Killers:

- Does not look clean
- Generic unhealthy food
- Unaffordable price point



Persona #3: Jim Penstein

“Stop double-standards, government. Keep coming, dear students.”

Jim Penstein owns and manages a food truck on Carnegie Mellon University’s campus. He has been operating the truck for the past 20 years. Business has declined in recent years and he attributes this to the growing amount of “out of car” vendors that he feels are stealing business from the food trucks. He feels like he needs to be ahead of the curve and is considering changing his strategy to gain more business.

Age: 52

Occupation: Food Truck Owner

Location: Pittsburgh, Pennsylvania

Needs:

- Needs a unified standard to inhibit car vendors
- Needs to find a new location in high-traffic areas for Carnegie Mellon University students
- Needs to refresh the menu to prepare food easily and attract new customers

Deal Killers:

- Too much competition, especially to unlicensed car vendors. Business profit is slowing down.
- Cannot move (does not have the license to be mobile and move around different location to park and serve on-campus)
- Less customers from December to February since the weather is too cold
- Cooking is only be allowed at the truck based on university permissions, but you cannot cook in negative temperature there



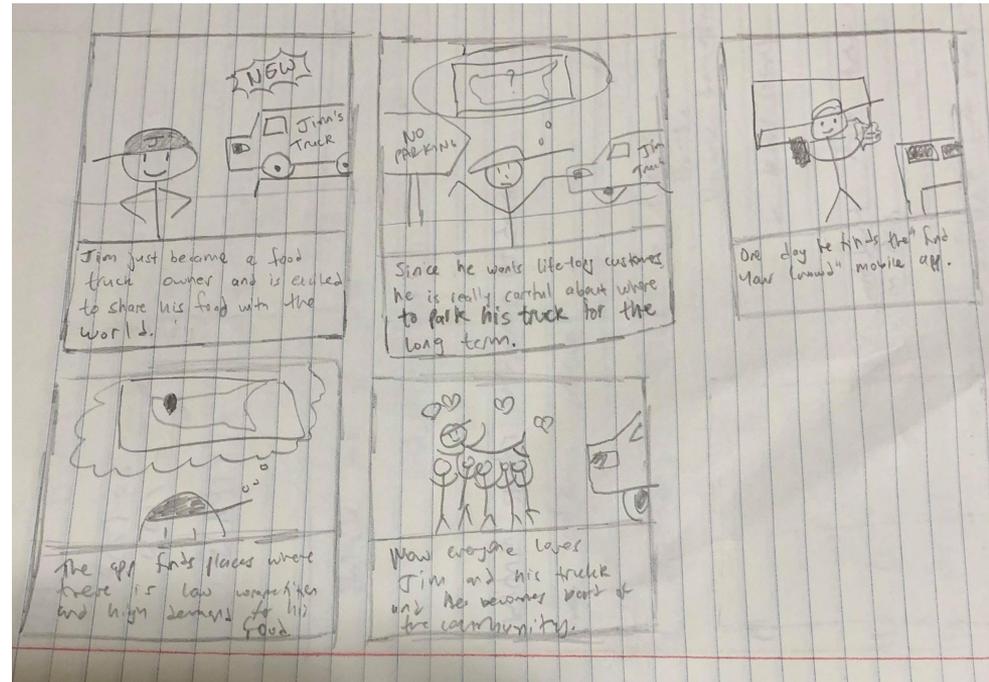
Scenarios + Storyboards

Anant Agrawal: Scenario + Storyboard

Jim is the new proud owner of a food truck. He is really passionate about spreading a recipe for tacos that his family has been passing down for generations, but he isn't sure where the best place is to park his truck is. Jim is looking for a place to park for the foreseeable future so he can start to build a loyal following of customers from the area.

He tried talking to other food truck owners for general advice, but most of the areas they suggested were commonly known to be popular and had a lot of competition. That was until one day he came across the "Find Your Crowd" app that leveraged years of historical data on foot traffic from the right demographic as well as the current competition level, upcoming events, and upcoming areas to make suggestions.

After trying out a few of these recommendations, Jim found the perfect spot where there was demand for his tacos and went on to become an integral part of the community.



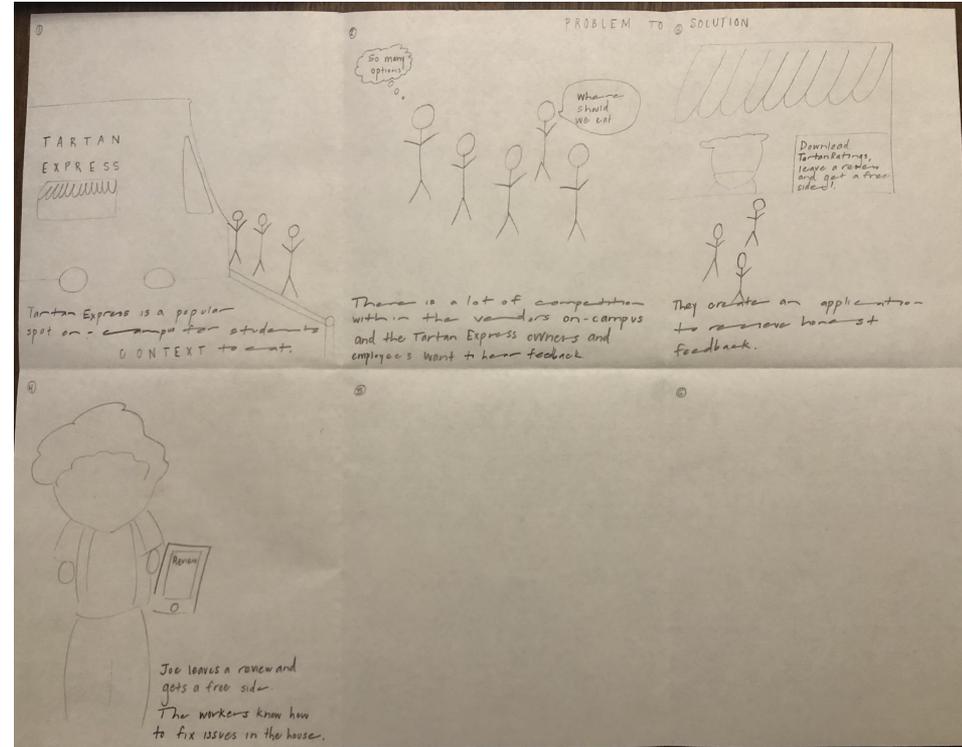
Pavi Bhattar: Scenario + Storyboard

Andrew is a junior at Carnegie Mellon University. He lives in off-campus housing, that is too far to go back just for lunch in between class, and is not on a university meal plan. Thus, he is always looking to grab food quickly between classes.

Given Andrew is a business student, he spends a lot of his time near the Tepper Quad. He eats a lot at the cafeteria in the building, but is frustrated by how slow the process to order and then pick-up the food is. Andrew's friend tells him about a website that shows the locations of different food trucks offering food from different cuisines around campus. Andrew becomes excited at the thought of eating fresh food that is cheaper and quicker.

The next day, Andrew finds himself at Scaife Hall. Far away from his usual food options at Tepper Quad, he quickly checks the website to see that that India on Wheels, a food truck offering flavors of Indian food, is conveniently parked on Frew Street for the day. It is currently open, and the website tells Andrew the current wait time is none.

His lunch plans for the day end up becoming a huge success. In only a few minutes, Andrew ordered, paid and received his food at India on Wheels, all without having to walk around campus until he found a place to eat that was open and had short lines.

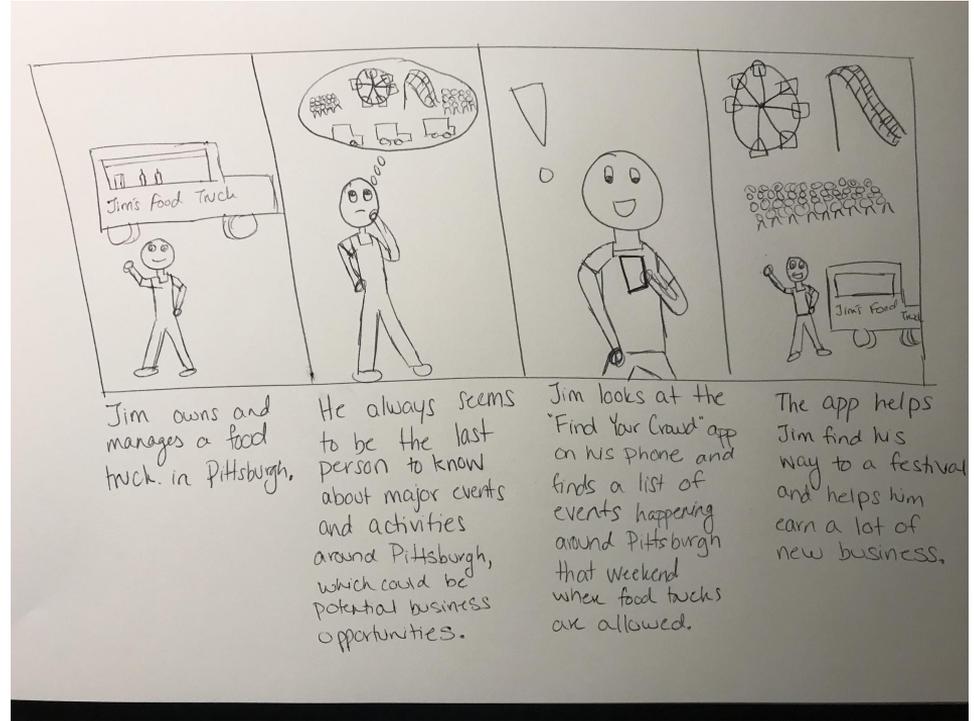


Pooja Casula: Scenario + Storyboard

Jim owns and manages a food truck on Carnegie Mellon University's campus. Business has declined over the years and he attributes this to the growing competition in the area. He always seems to be the last person to know about major events and activities around the Oakland area which serve as potential business opportunities.

Jim looks to the "Find the Crowd" app on his phone and finds details about events happening around Pittsburgh that weekend where food trucks are allowed. He decides to attend the Dragonfly music festival located in Schenley park. He finds out what time he could bring his food truck around and where he can park. He also finds out how many people are planning to attend the event so that he can prep the appropriate amount of food. Jim is excited for the potential business he can get this weekend.

The event is a success for Jim as he is able to make a significant profit. His food is a hit among customers who all inquire about where his regular location is.



Ziqi Dong: Scenario + Storyboard



Jim owns and manage a food truck.



Business has declined these years. His menu seems to be unattracted to CMU students.



Jim looks to "Find the Crowd" app and finds the Top 10 favorite dishes by CMU students. He picks 3 dishes from them as his signature dishes and refreshes the menu.



The refreshed menu works!
Jim's business has increased gradually.

Jim owns and manages a gyro food truck on Carnegie Mellon University's campus. Business has declined over the years, and he starts to think his food truck menu over. He asks himself many times, "what kind of food will actually attract these CMU students? Maybe I need to refresh my menu."

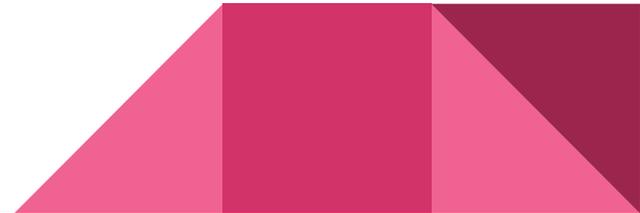
Jim looks to the "Find the Crowd" app on his phone and finds the top 10 dishes from food trucks that CMU students favorites. He decides to pick 3 kinds of dishes that are easy to make from the top 10 as his signature dishes. Jim is excited for the potential business bringing by the refreshed menu.

The refreshed menu works well! Since the menu changed based on what CMU students' favorite, his profit has increased gradually. Jim is very happy and he decides to explore more functions of "Find the Crowd" app.

Personal Statements

Anant Agrawal: Personal Statement

I learned a lot through this entire process. Being an Information Systems major I have experience conducting research to build software solutions for clients, but this project helped me realize the true depth, creativity, and value of research. Specifically, this project has helped me realize that in research, you find what you are looking for. For example, I went in thinking that I knew price and location are all that matter, and after talking to students I felt reassured that I was right. However, since we decided to record and transcribe our conversations, I was able to read everything that students said and I realized that there was a student loyal enough to follow a food truck's whereabouts. I would have never guessed someone would do this as I would never do this. This a-ha moment helped me realize what research was really about. I also learned how important the physical context of the user using your app is and that, for almost any user, the app is not the only important thing in their life.



Pavi Bhattar: Personal Statement

This was my first time conducting in-depth, comprehensive design research. Before this experience, my opinion on the process of designing and developing a product did not put much emphasis on speaking with and researching the customer base of the product before-hand. I understood that you should always have the stakeholders in mind when building the product, but did not grasp the harm of assuming their needs and wants for them.

I saw this learning take place directly when I interviewed the owners of the food trucks that sit on our campus. Coming into the interview, I had questions prepared that were based on improving business and advertising online. I thought that these questions would align perfectly with facts that owner could talk about, and surely they would want a website to show information about their trucks for students. However, during the interview, I learned that they had far bigger concerns, and were not too invested in having a website. They seemed to have bigger problems that they wanted to tackle (e.g. the unlicensed cars that sell food from their trunk near Tepper Quad). If I had not done this user research, I would have not been designing to really solve all of the problems in the food truck industry space on campus. Clearly, we can see that not everything is as you expected. I expected the interviews to go exactly as planned, just as I expected to know what the food trucks would want to see from our proposed product.

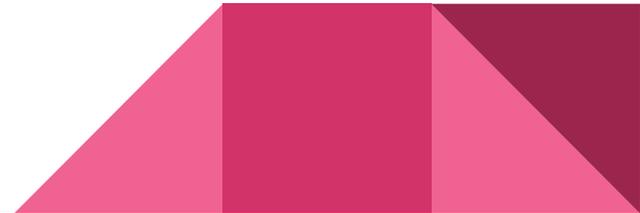
Overall, speaking directly with stakeholders before you begin designing and prototyping is a huge learning experience and provides a lot of value for the future of your product. Design research is not just limited to having users test your wireframes and prototypes. It extends farther to the beginnings of all your work.



Pooja Casula: Personal Statement

The main thing I took away from this experience was that asking customers or stakeholders in an experience gives you a much broader perspective about the experience for which you are designing for. In our case, asking customers and food truck owners about the food truck experience provided me more insight into the interaction between both parties. I didn't necessarily think about some of the things that were said such as dietary restrictions and the relationship between the out of car vendors and the food truck owners before actually asking them about that.

I feel like I underestimated the impact of design research before this project. I had this vision that design research was more focused on the actual interface of a product. I was under the impression that asking a person's opinions or thoughts on how a certain screen or product looked like was what design research was about. But I realized that design research is more focused on understanding the current issues that impact how a stakeholder experiences a product or service. In our case, what issues or aspects of the food truck experience impact how a customer or owner connects with it?



Ziqi Dong: Personal Statement

The thing I ignored before is fully understanding stakeholders. I used to be subjective about what stakeholders think, but not put myself into their shoes. From this experience, I know what should be done before the actual design process. It's very important to understand stakeholders first. Through observation and interview, we can know more about what they think and what they want, which will become the baseline of our design. After observation and interview, we should synthesize the findings to make everything organized and be more clear about the design goals.

