P7: Experience Evaluation Plan & Simple Evaluation

Team Yummy

Part 1: Basic Evaluation Plan

Methods

In order to to conduct our testing, we invited four participants to go through each of these three tasks. Our primary motivation in doing this was to make sure that to make sure that this application and its features would be beneficial for people with dietary restrictions. We also wanted to see how we could improve the flow of our interactions and information organization in our application.

1. Pre-Task Questions

We asked these questions to get a better sense of the user's background before we conducted any user testing for our prototype.

1. What is your dietary restriction?
2. How do you accommodate your dietary restriction? What tools do you currently use to assist you when figuring out where or what to eat?
3. Do you use food applications very often on your cellphone?
    a. If yes, how is your experience of using those apps?
    b. If no, why don't you use any apps?

2. User Testing

Here, we had each participant go through the 3 tasks, defined below, with the paper prototypes we built. We took notes throughout their interaction with the prototype and recorded any questions they raised. We also provided minimum guidance to see what confusions were inhibiting the user from completing the tasks.

3. Post-Task Questions

After the user has gone through all of the tasks on our paper prototype, we asked some final reflection questions to help us improve the experience of the tool.

1. Do you think this application provides you with relevant information?
2. Which of the features of this app did you find the most helpful? Why?
3. Do you have any suggestions for how we can improve?

Tasks & Completion Criterias

Task Scenario:

Imagine you are a vegetarian and allergic to peanuts. It's the weekend, and you want to dine outside with your friends in a restaurant with a variety of vegetarian options in Capitol Hill.

Task 1

Create a profile for a user that is vegetarian and allergic to peanuts.

Completion Criteria:

The task is completed when the user successfully creates a user profile that sets their dietary restriction as both Vegetarian and allergic to peanuts.

Task 2

Scan QR code on the given menu to view a personalized menu based on the profile. Locate an item that a user matching the profile cannot eat. Find out the reason why they cannot eat it and what they can do about it.

Completion Criteria:

The user scans a QR code on the menu and finds an item they cannot eat. They click on one of those items and discovers a tip. The task is completed when the user has successfully found an item they cannot eat and why that is.

Task 3

Find a recommended restaurant in Capitol Hill according to the profile, and find a dish you are able to order there.

Completion Criteria:

The task is complete when the user successfully finds a restaurant located in Capitol Hill that is recommended for them.

Participants Description

Our testing group consists of people living with dietary restrictions. Dietary restrictions can range from allergies, to maintaining vegan or vegetarian, to fasting because of religious holidays. Our participants are all students at UW that consistently find themselves eating off campus. They regularly use smartphones, and have attempted to use them to find restaurants to eat at.

Participant 1 (P1)

Our first participant is a sophomore studying Physiology and Spanish. She has been a vegetarian all her life, and has recently found out she is intolerant to the following: gluten, eggs, mushrooms, and peanuts. However, the only thing she is very strict about is her vegetarianism; She indulges in the other things whenever she pleases. She is very familiar with Apple products and the Microsoft platforms. She doesn't use many applications for her dietary needs, but sometimes uses Yelp to look up a restaurant's menu beforehand, and looks up recipes occasionally on the internet.

Participant 2 (P2)

Our second participant is a freshmen, planning to major in Bioengineering. She is allergic to seafood, brazil nuts, and hazelnuts. Her allergy is to the degree of being affected by even a trace, so cross-contamination within restaurants and other places would be an issue. This means she usually has to ask the waiters, just to make sure because things are often hidden. Additionally she is also lactose intolerant, and takes lactate pills when she decides to consume lactose. She does not use any apps for her dietary needs, but uses her iPhone daily and is proficient in Java.

Participant 3 (P3)

The third participant is a Senior at UW studying Informatics. While he says that he wouldn't label himself as vegetarian, he tries to avoid eating meat products to maintain a healthy physical body (chicken is okay). Because he isn't strict with his dietary restriction, he doesn't have a way to accommodate his diet with tools. One thing he does often when looking for food items is that he asks the waiter/waitress if they have substitutions available for that specific item. As with phone applications, he uses Yelp, but not specifically to find items that cater towards his diet.

Participant 4 (P4)

Our fourth participant is a female Junior studying International Studies at UW. She is lactose intolerant, so she tries to avoid eating cheese, cream, butter, custard, and other dairy products. Her current ways of accommodating her lactose intolerance include drinking lactose-free milk and telling the waiter to not put cheese in her dishes at restaurants. She uses Yelp, UberEats, and WeChat to explore food choices, so she is familiar with using food apps.

Part 2: Simple Evaluation

As a result of conducting three different user tests across four different users, we were able to identify common mistakes users made and what we can do to improve the user's experience during these interactions. Here are some of the main findings and strengths from the user testing:

Finding 1: Setting up a profile should be easy for all kinds of dietary restrictions, even non-traditional ones.

P3 and P4 both had questions regarding how they can setup their profile that matches to their personal dietary restriction. The reason they asked was because the paper prototype only afforded to go through the flow of a specific user: a vegetarian that is also allergic to peanuts. Because our participants (P3 and P4) were actually not vegetarians, they would want to see more customized options for their restricted diet profile. Both participants raised a suggestion that we created a 'others' (which we currently haven't designed yet) for the dietary restricted group. One of the questions it raises is how we are going to make setting up this "other" category as user-friendly as possible when there are virtually an infinite amount of food items and combinations people may not be able to consume.

One possible solution to the us is to have a search functionality when a user selects an item for the items that they cannot consume. Because there are so many of these items, a long list of items in alphabetical order would make the process long and potentially scare away users from attempting to set up their profile. Another possibility is categorizing these items into sections like meat, grains, and vegetables to help find their items more easily. A way to see what items have been selected in a list format may also be needed because users might forget if they "checked" the item already. A shopping cart in modern E-Commerce platforms may be something we can get inspiration from since it enables users to easily refer to what they have chosen already. Finally, a confirmation screen that resurfaces what the user has selected may also be helpful. The final solution may possibly be a combination of these multiple design solutions.

Finding 2: Multiple participants thought they would use the catalog search more than the QR code scanner

As a team, when we initially developed the idea for this application, our main feature was a QR code scanner. The application was meant to be a solution for the moment to poor menu labels and ensure that people with dietary restrictions are getting clear and accurate information about the food they are eating. We thought QR code scanner feature was important because in the user research stage, all of our interviewees said that labels on food products as well as menu descriptions generally lacked enough detail to allow them to make a decision about consuming it. However, from multiple prototype tests (P1 & P2 & P4), it is clear that most participants were more interested in our restaurant catalog feature. While they thought the QR code feature would be useful, they also thought that it was more important to know the dishes that matched their profiles before they arrived at the restaurants.

In order to accommodate for their expectations and hopes, we will ensure to put the restaurant catalog at the forefront of the application. As designers for the application, we will put this main feature on its homepage, because it's important that the users can easily access it. This includes having a search bar (or multiple search bars) that allow users to search for restaurants by location or type of food, as well as a way for users to access menus they have recently viewed, marked as a favorite, or ones that are recommended to them, based on their profile. Although the QR code scanner will still be on the main page, the user should not be directed to a camera when they first open the application.

Finding 3: It is important to include items users *cannot* eat based on their profiles on their menus

Another source of contention while developing the application is what the content of the personalized menus should be. While we were originally coming up with the application design, we wanted to include all menu items on the personalized menus and mark if the user was or was not able to order it, based on the information given in their profile. A lot of the feedback we received pushed back against the inclusion of these items because this information is potentially irrelevant and confusing to the user. However, one of our participants (P1) stated that she believed including these dishes in her menu was very important. Our participants (P1 & P4) said that they often found themselves asking for substitutions, which they said, were frequently not listed on the menu. Our first participant (P1) said that by leaving dishes that she could not eat

off her menu, we would be eliminating a lot of her potential choices. However, very often, restaurants do offer substitutions. Furthermore, P1 said that the green checks and red x's enabled her to easily identify items that she could and could not eat. This perspective aligns with our team's initial views, and we plan on keeping the items users "should not" eat based on their profile on their personalized menus.

Finding 4: The user needs to easily identify the object that will lead them to the screen where they can scan a QR code when at a restaurant

From our prototype tests, we found that users appreciated the scanner for quick access to detailed menu information when at a restaurant. However, we also realized that our camera button in our paper prototype did not clearly indicate that the camera button was for scanning QR codes. When giving the second task to P2, she hesitated when trying to find her way to the scanner. After giving a little hint, she said "Ah, I'm guessing I'll use the camera icon". When we asked for suggestions in our Post-Task questions, making the scanner more easily found and accessed was one of hers. Shortly after P2s prototype test, an interested student nearby came over to ask what we were doing and if she could go through the prototype test as well. She too said the camera button was unclear to her, and suggested it to be bigger and possibly even have a label leading one to the QR scanner.

As a team, we will have to work on ensuring that the QR scanner feature is clear to our users. Although it may not be the main feature of our app, the QR scanner is still an important and convenient feature providing the user with simple and short step procedures to view further information when at a restaurant. A possible solution could be centering the camera at the bottom of the screen with a simple image of a QR code on the camera. Thus, when the users see the QR code at restaurants, they can intuitively put both together.