

### **Qualitative Evaluation - Iteration 3**

The web app created during this iteration was used to conduct the qualitative evaluation. The functions of the prototype are limited to switching between the different views of the app. Before testing, the subjects were made aware of this fact.

For the evaluation, a three-stage procedure was decided upon: First, the demographic data of the test persons was collected and a "First Glance Testing" was conducted. They were each given the opportunity to look at the app themselves without being given any information about the type or function of the app beforehand. Subsequently, the experimenter asked questions to check whether the design communicated the product as desired.

In the second stage, the test persons were presented with a scenario that represented the context for using the app and a total of eight tasks that had to be completed with the help of the app. The tasks each related to one of the main functions of the app. The test persons were asked to speak their thoughts aloud during the task. Additional questions were asked after each task to gain a better understanding of the perceived usability.

Finally, the user's holistic experience with the app was evaluated to gather information that may not have been captured before. For this purpose, the test persons were asked to list the functions of the app. The aim was to find out which functions stand out and are remembered. The test was conducted with four subjects (1 female, 3 male) aged 22 to 27 years.

The "First Glance Testing" showed that three of the test persons correctly recognised that the app was about ordering food. There was confusion as to how and where the app should be used exactly, i.e. whether from home or in a restaurant. It was assumed that it would simply replace the menu there. One of the test persons also correctly recognised that the menu is displayed filtered by diet.

In the second part, tasks 2, 3, 4, 7 and 8 could be solved without problems: "Was totally self-explanatory and easy to find." The only comments here (task 4 and 7) were related to the "Call a Waiter" and "Do Not Disturb" functions, where it was suggested to give the user a confirmation if the function is currently being executed. Also after task 3 it was not completely clear what the status of the order is now. Again, additional feedback could be needed.

Task 1, which related to the 'Getting Started' sequence, highlighted that two of the subjects found the large number of chips in a pile confusing when selecting allergies. It was suggested to use a search or dropdown menu instead. In the final interview, it was also said that it would make more sense to ask about the allergies first, as these were more important than a self-selected diet. Concerns were also expressed about the extent to which one can actually trust that all allergens are correctly reported by the restaurant to the app.

A major problem point emerged from tasks 5 and 6, which related to ordering and payment. Only one of the subjects was aware that the dishes under "Orders" had been ordered but not yet paid for. Three of the subjects assumed that a history of past orders could be found here. This part of the app was not intended as such. This misunderstanding also led to one respondent asking what would happen if he did not pay immediately. It was noted twice that this button should be renamed "Past Orders". The test persons noticed positively that after ordering, an indication is displayed that the food is being prepared.

There were other minor comments, but overall the test persons found the app easy to use. Particularly memorable were the food ordering functions, "Call a Waiter", "Do Not Disturb" and the payment function. One respondent even noticed the pre-order option without it being in the tasks. And when asked, they also guessed correctly how this function would work.

## **Appendix**

First Glance Testing → validate if design communicates what the product is

- What do you think this app is for?
- When would you use it?
- What, if anything, doesn't make sense here?

Scenario to be described before doing the Use Cases:

(In-Restaurant Scenario) Imagine you are in a restaurant with your friends that uses a new app called Me'n'U. You have been on a special diet for a while. The app has some new features that you want to try out with your friends today. When you sit down at your table, there is a QR-Code on the table top.

Use Cases + questions:

Task 1 (Get Started): You open the app for the first time. You want to go to the home screen. Describe what you see and what you would do.

Task 2 (Preferences): You are on the Home screen. You notice that you forgot to enter something in your food preferences. Find where you can edit your food preferences. (Do not restart the app to do this, but start from the homescreen!)

Task 3 (Customise food): Now look at the menu. The pepperoni pizza sounds very good, but you would like to tell the restaurant that you want extra cheese and no basil leaves on the pizza. Customise the pizza and add it to your order.

Task 4 (Call a waiter): You have questions about a few dishes, but there is no waiter in sight at the moment. Try to get one to your table using the app.

Task 5 (Past and New Order): It's a bit late in the evening now, but you and your friends still want to order something. You have already chosen what you want to reorder. Take a look at what you are reordering and what you have ordered so far.

Task 6 (Order and Pay): Since you are going to leave after the new order anyway, you decide to pay immediately. Order the food that has already been chosen and pay immediately. Then go back to the homescreen.

→ After completing the task, ask what the user thinks will happen to the entries in "Past Orders" now that they have paid.

Task 7 (Do not Disturb): You and your friends are so good at talking right now, so you don't want to be disturbed while you're eating. Find a way to let the restaurant know using the app.

Task 8 (Check Out): You are done eating. Leave the restaurant and check out your app. You decide not to leave any feedback.

Assess usability → ask after users complete tasks to gain a better understanding of usability (ask a maximum of 3 questions after a task)

- Was there anything that surprised you? If yes, what?
- Was there anything you expected to find that was not there?
- What was difficult or strange about this task, if anything?
- What was easy about this task?
- Did you find everything you were looking for?
- Was there anything that didn't look the way you expected?
- What was missing, if anything?
- What was unnecessary?
- How would you rate the difficulty level of this task?
- What would you change about this experience/task?

Holistic experience → collect information we haven't captured yet

- Try to list the features our app has ( → enables us to see what stood out the most to the user)
- Do you feel this app is easy to use?
- How would you improve this app?