

Submitted by Group 18

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DIS1 WS 19/20 - Project Milestone V  
Evaluation of Low-Fidelity Prototypes

# 1 Evaluation with the user

## 1.1 Solution #1

### 1.1.1 Objective of the study

We want to get users impression if they find solution helpful and especially fun. Additionally if they would like to use them and if they will not have any problems with usage. In our evaluation will help prototype, which will give users sense of using a real device.

### 1.1.2 Contextual Information

We made an appointment in building of Computer Science Faculty, to make user feel at least a little bit like in a crowded shop mall.

### 1.1.3 Details of the task

We will use Model Extraction. Interviewer will give user carboards with prototypes of screens of application. User's goal will be to describe what he sees, what are his impressions and if he finds the prototype intuitive. Thanks to this, we can check if our vision of application is clear and understandable for people not involved in creation of it.

### 1.1.4 Experimental Procedure

Each of the user will follow the same path of the experiment. Before evaluation users will have no idea about out solutions. Additionally we will perform Retrospective Testing.

### 1.1.5 Unedited video

### 1.1.6 Important findings

- Both of the users were struggling with "shopping bag" icon on one of the pages. One of the user was thinking that's kind of security button. After explanation to them, they have found improvement - change icon to "a shopping trolley", which will be obvious.
- Users had problems to discover how to choose country. Our idea was to imitate "Google Earth", but that was not as obvious for our users.
- Both users got stuck on "items" page. They mentioned that we already displayed items on one screen before. Our solution should include explicit information, about each subpages. In this case your personal shopping list page.
- Female user liked our solution - she find it very interesting to extend doing a regular shopping to something more interactive and unusual. She said that our solution stands out for people who likes to meet new cultures and facts.

## 1.2 Solution #2

### 1.2.1 Objective of the study

To find whether our prototype about Shopping Companion would be well-received or not

### 1.2.2 Contextual Information

the experiment held in a hall in Computer Engineering Department of RWTH. There were passerby people, which we cannot avoid. This might have created tension on the user, yet it was our best call.

### 1.2.3 Details of the task

The Model Extraction is employed to extract what user understand from the prototype. In addition, this prototype employs a genie, who can talk and direct the user. In order to emulate that with our low budget, I played the role of the genie. (I only read the text on the interface, and did not add any other word in my speech to the users)

### 1.2.4 Experimental Procedure

- User is greeted, and her consent is openly asked.
- The items on the left (items from a supermarket) are explained, that they are actual items from supermarket and they are emulating supermarket aisles.
- The prototype is explained briefly, that the paper belongs to the application UI and how one can interact with that.
- Pre-provided cellphone with a shopping list on it is explained to the user.
- The user synchronizes using the given phone.
- The shopping list appears on the tablet, and the genie encourages user to start scanning items.
- The user scans the shopping items on her left in any order she wants.
  - whenever an item is scanned, an appropriate UI change (information about the scanned item, crossing out the item from the shopping list, advice on health) has been made.
- as the shopping list is depleted, the user is informed about this event and asked whether she wants to continue shopping. In case the user wants to continue, UI goes back to displaying shopping list and is ready to start upcoming items, if there is any.

### 1.2.5 Unedited video

Please see the following YouTube links

- Tina
  - UI and user interaction videos, merged side-by-side into one: `videos/shoppingcompanion/tina_test.mp4`
  - the user feedback after the experiment: `videos/shoppingcompanion/tina_feedback.mp4`
- Enes
  - UI and user interaction videos, merged side-by-side into one: `videos/shoppingcompanion/enes_test.mp4`
  - the user feedback after the experiment: `videos/shoppingcompanion/enes_feedback.mp4`

### 1.2.6 Important findings

- Users liked the voice feedback that is provided. (we were not sure about whether to provide voice-over or not, now it is evident that it is beneficial) (was also a tip from our advisor)
- the writing style of the comment on unhealthy products are described to be a bit intrusive: it was also said we might improve on the word selection to make user feel at ease & not feel to be judged.
- using different screens for the comment on some of the products misled the user, and required more time from them to interpret. It is better to stick with single same screen for item identification, and provide the comment there, not in a different page.
- the page about the shopping list completion rate seemed a bit different, and user tended to continue shopping. In order to aid this, we decided to remove this page altogether and only provide an exclamation mark over the completion percentage in GUI to make the experience more enjoyable.
- feedback on the health concern over some items seemed like a bit off by the users. A recommendation on allowing a user to enable/disable the food health comments is made, which is well-received. On the initial screen, we would provide a switch for user to decide on whether she wants to enable comments on food quality.

## 1.3 Solution #3

### 1.3.1 Objective of the study

To find whether our prototype about Shopping Healthier would be understandable by users and whether users get fun while using this system. Besides, we observe if the users have problems with the usage.

### 1.3.2 Contextual information

For that is complex to perform the tasks with our low-fidelity prototype in a real supermarket(a supermarket is crowded and we cannot face to emergency scenarios with our low-fi prototype), we have chosen the building of the RWTH Computer Science Faculty to ask our interviewees to perform the tasks.

### 1.3.3 Details of the task

We use the Model Extraction to see if user have problems with the usage and whether user can perceive the information from the system well. We ask our interviewees hold our prototype in hand and perform normal shopping process. We show the interaction while the users are shopping without explaining and the user should speak out their thinking of the information they perceived from the prototype. The process takes about 5 to 7 minutes.

### 1.3.4 Experimental procedure

- Initial environment setup: we placed the items from the supermarket on the desk to emulate the supermarket environment.
- Ask the user to do normal shopping process(as in a supermarket).
- While the user is shopping items, show the prototype's interaction to the user without explanation.
- Ask the user to inform experimenters when the user is done with the whole shopping process to complete this experimental procedure. Additionally, we perform Retrospective Testing.

### 1.3.5 Unedited video

Please see the folder "shopping healthier".

### 1.3.6 Important findings

- For both users it was unclear at the beginning how the redeem procedure and the "feeding the sheep" system works. One user suggested to use some kind of pop up message with explanation of the system works.
- One of the users liked the idea of choosing her diet, however she noted that more types of diet should be included
- Both of the users did enjoy the redeem points system and therefore found this solution fun.
- One of the user issue was that he didn't know what exactly to do after he finished shopping. He suggested that there should be a description saying, that user should scan the barcode afterwards at the check-out.