Initial Prototyping Testing

Section 1: Title

Group Name: "dew == true;"
Jeongmin Yoo (jeongmin.yoo.1@stonybrook.edu)
Yejin Shin (yejin.shin@stonybrook.edu)
Yooha Bae (yooha.bae@stonybrook.edu)

Section 2: Mid-fidelity testing

a. User testing methods

Our target users are seniors who have difficulty using smartphones. However, due to COVID19, we could not visit our grandparents or the senior welfare center. Also, we could not contact them via any programs that enable screen sharing because they are unfamiliar with the use of computers. Thus, we concluded to test people of different ages for user testing. ->First, we contacted two of our professors, user 1 and user 2, who are the closest age range to our target users. We also conducted user testing with one family member of our team members, user 3, who is familiar with English because our prototype is made in English. To widen the age range, we also asked for feedback from a student of SUNY Korea, user 4. The testing was conducted in CS commons for user 1 and user 4, in the professor's office for user 2, and via zoom for user 3. All tests took about 10 to 15 minutes, including brief instruction before starting the user testing. We retrieved data from the notes taken during the tests and the survey we received after tests, and could easily analyze them since users commented on similar problems.

b. User testing results

i. Before Revision

After our user testing of user 1 and user 2, we received detailed feedback that allowed us to improve our mid-fidelity prototype. One of the most significant key findings was that users were confused about which applications that were fully implemented. Our prototype provides guides of many different applications; thus, in this stage, we could not implement all of the applications. However, users clicked on the unimplemented applications during the user testing, and when nothing popped up, they were confused. We solved this problem by including locks on the icons of the applications to show the users that they cannot access these applications, increasing the visuality of the prototype. The user testing also revealed many other problems to fix, such as the screen time for the explanation of the DoUm icon being too fast, and that there weren't any explanations of the DoUm app and the applications that we provided the guides of. During the user testing, we could also see that the users were confused about how to move onto the next screen if the gray screen popped up. Another key problem we found was that users had difficulty looking for the replay, next, previous buttons on the course screen. User 1 and user 2 didn't know the existence of these buttons and moved to the previous screen. After we told them the existence of these buttons, they stated that we should make the replay button visible when the screen pops

up. Also, user 2 was confused about the exact meaning of course. After our explanation, he was able to understand and suggested that we should change the wording to the lesson.

We also received additional feedback from the survey. User 1 stated that including a distinguished set of colors and shapes and icons would help users understand clearly if they are using an application guide in DoUm or if they are using the application directly. The user also stated to include a quick way to exit from DoUm. User 2 commented that he could not expect what to do next since there was no "continue" button to move on. He also mentioned that the overall interface could be improved because he thought our current interface structure was not the best option for the variety of menus that DoUm has.

ii. **After Revision**

After we conducted peer review and user testings from two professors, we were able to get some useful feedback, and by accepting those feedback, we revised our prototype. However, when we conducted user testing for users 3 and 4 after revised suggested problems, we could not receive critical feedback from them. User 3 and user 4 complimented our prototype very highly in design and function. Although user 3 had difficulties when she was trying to close the filter, this was similar to the feedback mentioned earlier, and now we are figuring out how to solve this problem. The survey showed similar feedback to user testing. User 3 gave one additional feedback to include some colors to the buttons such as the DoUm smiley icon to improve visibility. Apart from this feedback, the users felt that the prototype was easy to use and consistent.

Section 3: Appendix
   ### a. User Testing Notes

User Testing Notes

User Testing 1 (Professor)
Date: 4/29

Time: 15:30 ~ 15:45 pm

Team members present: Jeongmin Yoo, Yooha Bae, Yejin shin

· Feedback:
- Screen time for explanation of the DoUm icon is slow.
- Need explanation on what DoUm application is about.
- Need explanation on applications.
- Need a scroll bar or arrow → show that it is scrollable

User Testing 2 (Professor)
Date: 4/29

Time: 17:30 ~ 17:45 pm

Team members present: Jeongmin Yoo, Yooha Bae

· Feedback:
- Don't make the guide screen scrollable → replay button is not visible
- What does course list mean? What is a course? ⇒ change to lesson

User Testing 3 (Team member's family member)
Date: 4/29

Time: 19:40 ~ 19:55 pm

Team members present: Yejin shin, Yooha Bae

· Feedback:
- Continued pressing the filter and other places → didn't work
- Add colors to smiley face icon

User Testing 4 (student)
Date: 4/29

Time: 20:00 ~ 20:15 pm

Team members present: Yejin shin, Yooha Bae

· Feedback:
- Users may be confused between scrolling and sweeping

b. Survey Responses (https://forms.gle/AutXadBvmEgWz1eD7)
i. User 1

1. What were areas where it was not clear what you could do with the system? *

The DoUm app needs some introduction that explains about the app itself. It took me a while to realize what DoUm app is doing.

2. Do you think we chose appropriate apps that people over 75 years old would want to learn? *

Yes, I believe it can help users not only the seniors, but anyone who are new to an application.

3. Do you think these apps will help target users? Please tell me in what ways you think it would be helpful and why you thought it would not be helpful. *

Learning the DoUm app itself could be an obstacle to overcome. However, once users get used to DoUm app, they can learn other apps easily in a standardized way.

4. How was the overall consistency? Consistency means that the application uses similar icons and have similar actions related to those icons. *

It was not clear whether I was using an App in DoUm or I was using the app directly. I think, using a distinguished set of colors/shapes/icons might help.

5. Overall, how can DoUm be improved? *

It is a good way to help users learn new apps. I think, an introduction about DoUm app and introduction to other apps that a user is about to learn may help understanding the apps. I wish there is a quick way to exit from DoUm and a clear indication that the user is using an app in DoUm.

ii. User 2

1. What were areas where it was not clear what you could do with the system? *

On some menu items, I did not know what to do or what to expect.

2. Do you think we chose appropriate apps that people over 75 years old would want to learn? *

I am not sure.

3. Do you think these apps will help target users? Please tell me in what ways you think it would be helpful and why you thought it would not be helpful. *

If done well, it would be helpful. However, I am not sure if the interface is well structured with enough menu varieties.

4. How was the overall consistency? Consistency means that the application uses similar icons and have similar actions related to those icons. *

I think consistency was okay, but I am not sure if it has enough menu items.

5. Overall, how can DoUm be improved? *

See my comments in 1-4. I think it will give some ideas.

iii.   User 3

1. What were areas where it was not clear what you could do with the system? *

I don't see any parts that were not clear, for the developer explained them well.

2. Do you think we chose appropriate apps that people over 75 years old would want to learn? *

Yes, definitely

3. Do you think these apps will help target users? Please tell me in what ways you think it would be helpful and why you thought it would not be helpful. *

it will be helpful for them because the letters used in the app are large and easy to tell what kinds of functions the buttons have, and the smile button is cute and helpful to find the information that I need

4. How was the overall consistency? Consistency means that the application uses similar icons and have similar actions related to those icons. *

Very consistent

5. Overall, how can DoUm be improved? *

There are some limits to use a few buttons, but overall , it looks useful for older users. To improve the app, I suggest adding some colors to the buttons on the app, for example, yellow color to the smile button, etc.

Submitted 5/1/20, 4:34 PM

iv.   User 4

1. What were areas where it was not clear what you could do with the system? *

To me there was no where that was not clear. All sections were mentioned clearly and the icons matched the contents well. When I faced where people can be confused the application directed to scroll or swipe at the right time.

2. Do you think we chose appropriate apps that people over 75 years old would want to learn? *

Yes. The applications were used by the majority of people. I had a chance to experience applications like Kakaotalk and KakaoT, which I too use quite often.

3. Do you think these apps will help target users? Please tell me in what ways you think it would be helpful and why you thought it would not be helpful. *

Yes. As I live with my grandparents, I tend to help them a lot with issues similar to what this application offers. This application would be able to help the elders deal with smartphone problems.

4. How was the overall consistency? Consistency means that the application uses similar icons and have similar actions related to those icons. *

For the icons, I have noticed that they used the icon from the application and for the other pages they used captured page from that application, so it was quite straight forward for me to understand and go through what I wanted to learn, which means the consistency was very high.

5. Overall, how can DoUm be improved? *

Overall, I think this is already almost perfect. I hope there can be more applications like this to help others who are having trouble with smartphone issues these days.

Submitted 5/1/20. 4:55 PM