Milestone 4 – Evaluation
MediSquad

Heuristic Evaluation

The mobile app that we created does a very good job of responding to user feedback within a reasonable amount of time. This reduces the overall need to keep users informed about updates in regard to what is going on within the application. The visibility of system processes is not very strong as the application does not have many resource consuming processes within it.

The system within the application does a good job of supporting real world user language rather than system jargon. All options and external links are labeled with terms that relate to the application and help guide the user through their experience smoothly. The interface follows real-world conventions, making information appear in a very natural and logical order.

The system was designed to promote complete user control and freedom, and areas of the application that do otherwise have very distinguishing factors. Areas that are not "clickable" or do not have an option available for selection are typically featuring a bright red background and a lot of space (no text). Error prevention is accounted for in the "HOME" button that is present on all screens, allowing users to return to the home screen in the event that they select the wrong option.

Error prevention within this application is very consistent, it provides users with explanation or an intuitive experience.

Objects, actions, and options of the system is easily visible for most portions of the app. Everything is labeled according to its function therefore the user does not have to remember information from one part of the dialogue to another. Instructions for use of the system are visible where appropriate.

Users are unable to tailor frequent actions through the current interface on the application, this decreases the flexibility and efficiency of use. The system does cater both inexperienced and experienced user very well.

Regarding the aesthetic and overall design of the application, dialogues do not contain information which is irrelevant or rarely needed. The app seamlessly blends into the UGA eco-system of virtual products.

The application does not address user errors outside of the ability to go to the main screen from any page within the app. With something this intuitive and simple, this was purposefully designed so that in the event of a mistake, users could easily start over.

Documentation and "help" options could potentially be necessary with this system. The help menu that assists users with concrete steps to be carried out for each desired action is useful for certain things that are not very intuitive.

Cognitive walkthrough

Defining the users and context of use analysis

Users of the product will include any individual with UGA related login credentials and has the ability to schedule an appointment with the UGA Health Center. This includes full time and part time students, full time and part time faculty members, and other staff that are authorized to schedule an appointment.

This product will be used when a prospective user would like to: schedule an appointment, check in to an already scheduled appointment, modify/add insurance information, view their assigned doctor/other doctors, message a doctor, or view their active/inactive prescriptions.

Task determination for walkthrough

For the purpose of this walkthrough, it is appropriate for the demonstrator to access at least three of the six immediate functions provided by the system. The three that the demonstrator will model include: make appointment/check-in, insurance, and my prescriptions.

Rules for walkthrough

The demonstrator must simply proceed through the functions with the objective in mind. For example, if the demonstrator would like to view their inactive prescriptions, they must proceed through the screens with that goal in mind and complete the task at hand.

Walkthrough

1. Make Appointment / Check in: "As a student, I would like to book an appointment"
    a. User given clear distinction between 'making an appointment' and 'checking in'
    b. User given a pretty extensive list of clinic options to choose from; potentially may choose wrong one
    c. User given the soonest appointment times in the same list format without ability to choose a date/time unspecified by the system
    d. Summary screen is good for showing the users exactly what appointment they are registering for before a final confirmation; this should reduce the error rate regarding selecting the wrong appointment time; also given option to retry and select a different time
    e. Nice large confirmation screen showing the user that they have successfully confirmed their appointment; the email confirmation is added bonus

2. Insurance: "As a student, I would like to update my insurance card information on file"
    a. Insurance screen very self explanatory; user given option to select which side of card they would like to take picture of
    b. Choosing a photo prompts Apple OS photo selection API; user is more than likely already familiar with the Apple OS photo selection API and would enjoy the familiarity in functionality
    c. User may want an option to enlarge the picture of the insurance card on file for viewing purposes while at the register for checkout, etc.
    d. Saving the card prompts a saved selection message, confirming to the user that their card has been updated

3. My Prescriptions: "As a student, I would like to view the dosage of amoxicillin I am currently prescribed"
    a. Immediately upon entering the prescriptions screen, user is given a list of already active prescriptions, good added bonus
    b. Selecting a prescription gives the user a well laid out screen showing them dosage information, etc; easy to view and well organized

Debrief & Solutions to problems identified

The demonstrator found that it was easy to access all the screen and menus required to complete each objective. Each screen flows appropriately and logically into the next, preventing user confusion or error. "Making an Appointment" could be better with the implementation of the Apple OS picker-view scroll bar for the available appointments, because it would give users who want later appointments the option. The usability of "Insurance" could be improved by giving the user an option to enhance the size of their insurance card for ease of use at the register during check out.

Predictive Evaluation - KSLM

Go through the process of making an appointment and checking in

- **[ ] Home on mouse**
- **[ ] Point (Make Appointment)**
- **[ ] Click Make Appointment**
- **[ ] Point(Make Appointment)**
- **[ ] Click make an appointment**
- **[ ] Point(Continue)**
- **[ ] Click continue**
- **[ ] Click day**
- **[ ] Click continue**
- **[ ] Click schedule**

H = 0.40, P = 1.10, B = 0.20, K = 0.28
H, 3P,6B
Predictive Time = 4.9 Sec

2. View your current bill and pay your balance

- **[ ] Home on mouse**
- **[ ] Point (Pay Balance)**
- **[ ] Click Pay Balance**
- **[ ] Click pay Balance**
- **[ ] Point (Type)**
- **[ ] Click type**
- **[ ] Home on Keyboard**
- **[ ] Type card info-exp-cvv-payment**
- **[ ] Click submit**

H = 0.40, P = 1.10, B = 0.20, K = 0.28
2H, 2P, 4B, 23K
Predictive Time = 10.24 Sec

3. Update your insurance information.

- **[ ] Home on mouse**
- **[ ] Point (Insurance)**
- **[ ] Click insurance**
- **[ ] Point (Front)**
- **[ ] Click front**
- **[ ] Point (Back)**
- **[ ] Click back**
- **[ ] Point (Save)**
- **[ ] Click save**

H = 0.40, P = 1.10, B = 0.20, K = 0.28
H, 4P, 4B
Predictive Time = 5.60 Sec

4. Find out who your primary physician is.

- **[ ] Home on mouse**
- **[ ] Point (My Doctor)**
- **[ ] Click my doctor**

H = 0.40, P = 1.10, B = 0.20, K = 0.28
H, P, B
Predictive Time = 1.70 Sec

5. Check your message inbox.

- **[ ] Home on mouse**
- **[ ] Point (My Doctor)**
- **[ ] Click secure messaging**

H = 0.40, P = 1.10, B = 0.20, K = 0.28
H,P,B
Predictive Time = 1.70 Sec

6. Find your most current prescription.

- **[ ] Home on mouse**
- **[ ] Point (My Prescriptions)**
- **[ ] Click My prescriptions**
- **[ ] Point (Top choice)**
- **[ ] Click most recent subscription**

H = 0.40, P = 1.10, B = 0.20, K = 0.28
H,2P,2B
Predictive Time = 3.0 Sec

KSLM was chosen as our method because of its usefulness in timing a users response. A good application emphasizes speed to reach a target destination, and allowing users to quickly access certain menus could only look to add to their user experience. Making sure menus are quick and easy to reach increases usability, and decreases confusion that can occur due to overcrowding on a screen or other variables.

Retrospective Testing Interview

Five people were interviewed. All of them were current full time students at UGA, in the 18-25 age range, three were male and two were female. Each of the users were asked to perform the following tasks in the prototype:

1. Go through the process of making an appointment and checking in.
2. View your current bill and pay your balance.
3. Update your insurance information.
4. Find out who your primary physician is.
5. Check your message inbox.
6. Find your most current prescription.

These tasks were chosen because they take the users through the main functionalities of the prototype. The goal was to make sure that these functionalities were easy to understand and use, and to find any issues that the users had. While the user was performing the tasks, the interviewer had minimal interaction with them. The interviewer wrote down what tasks the user seemed to be struggling on but waited until the user was done before asking any questions. Once the user was done, they were asked what they thought were the positive and negative aspects of the prototype. The interviewer also asked about the functionalities that the user seemed to struggle with.

The results from the interviews were pretty much the same for all the users. The users liked the overall color design and flow of the system. They thought it was easy to find the different functionalities. A common complaint was that not enough functionality was implemented to fully complete some of the tasks. The next iteration of the prototype should let the user actually book an appointment and implement an app wide search function.

Think Aloud Evaluation

Five users were given the task of making an appointment in the application, the following were responses and audible words/questions recorded from the users:

“Alright, so log in with the same UGA ID I do for ELC?”
“Okay so I guess I’ll make an appointment, and medical primary care sounds good”
“So where do I click If none of the offered dates fit my schedule? Help?”
“So I would just check in the day of the appointment?”
“What if I needed to reschedule my appointment?”
“Do I get to choose any doctor I want or is it just a doctor I’ve seen previously?”
“The color and contrast are easy to read and match UGA well”

This task was chosen because it best represents the tasks overall. The interviewer remained quiet throughout the process and recorded anything that was said. Most user responses were very similar from person to person so only unique responses were recorded here.

Questionnaire results

The questionnaire was given to the 5 people who did the retrospective interview and the 5 people who did the think aloud interview. There were 5 males and 5 females, all in the 18-25 age range. All of them were full time students at UGA. We learned the following information from the questionnaire:

- One thing that came up frequently was the users felt that including a calendar in book appointment, showing available appointments, would make the functionality easier to use
- On average the user felt lost two times
- Users feel like they would use a mobile UHC app more than the website
- Users felt that book appointment/check in needs the most work with its implementation
- The average user satisfaction rating was a 7

Conclusion

Conclusively, the results from our evaluations have revealed that for later prototypes more functionality needs to be implemented. The app proved to be somewhat confusing for some users, so implementing things such as a more extensive help/ FAQ screen can lessen confusion. The calendar in the appointment booking portion of the app needs to show available appointments to allow for easier use for users. Also, more specific instructions should be included for portions of the app that were considered intuitive before. A rescheduling option should also be implemented. In the “my doctor” portion of the app, more shortcuts should be included to allow users to access frequent actions quicker. The best portions of the application was the “my doctor” implementation as well as the seamlessness of it, allowing it to easily fit into the UGA ecosystem.

Copy of Questionnaire

Questionnaire

1. If you could modify one thing about the health center application, what would you choose and why?

2. About how often did you find yourself stuck or lost while going through the application?

3. Choose one based on the statement below:

   strongly disagree disagree agree strongly agree

   I feel as though I will start using the mobile UHC application more frequently than I use the website version.

4. Which function do you believe needs the most work with its implementation?

   A. Book appointment / check in

   B. Insurance

   C. Secure Messaging

   D. Pay Balance

   E. My Doctor

   F. My Prescriptions

5. On a scale of 1-10 how satisfied were you with your experience using the health center application?