Assignment #7a: Usability Study Instruments

CSCC10 Human-Computer Interaction
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Usability Testing Plan

Introduction

The purpose of this study is to have users test our prototype, so we can figure out any issues that need to be fixed. Throughout our research, we have found that wait times are the biggest barrier to accessing healthcare. Our goal is to diversify the patients to different clinics, reducing the overall load of the clinics. This prototype models our solution and we are looking forward to you using it.

See the consent/confidentiality form below.

Our prototype is an interactive website aimed to provide Canadians with the shortest times to access healthcare. Our web-based application, OnTime, is designed to help users find the closest clinics and their waiting times. Not only will users be given a list of medical centers pertaining to their requirements, but users will also be able to select any of the suggested clinics and get the directions to it. OnTime provides a map view of the search results and directions, as well as a plethora of different filtering and sorting options so that the user can find the clinic that best suits their needs.
The expectations for our study is that we will be able to diagnose design issues in our prototype.
We promise that the data from this study is confidential.
We ask that you express your thoughts aloud as you work through the problems during this study. We will occasionally remind you in case you forget!

Usability Testing Instruments

Background (Pre-Study) Demographic Questions

- How old are you?
- What is your occupation?
- Were you born in Canada?
- Do you have any children?
- How often do you visit clinics/hospitals in a year?

Test Script

Scenario:

You are a 1st-year student at UTSC, living on campus. You are fairly new to Toronto, so you don't know much about where everything is. One day you start feeling slightly ill and start feeling worse as the day goes on. By the time you decide to go to the doctors, the medical facilities on campus have already closed. You have a lot of assignments due soon, so you don't want to spend a lot of time waiting for treatment. Desperately, you go on google and find an app that gives you a list of waiting times of nearby clinics/hospitals and decide to try it out.

By using this system, please complete the following tasks:

Task 1			
Question 1	**Answer/Screenshot**	**Score**	**Notes**
Can you navigate away from the homepage and find a list of medical centers near your current location that you can arrive to by travelling on a bus if you leave right now?	User will need to click on **find clinics/hospitals near you** button on the homepage User will to click on the **use current location** checkmark box User will need to set the **departure time** to the current time User will need to click on the **bus** icon as their method of commute User will need to find results by clicking on the **search** button		
Task 2			
Question 1	**Answer/Screenshot**	**Score**	**Notes**
Can you change your starting point location to 611	User will need to find the **departure time**		

Savoline Rd and your departure time to 4 pm?	button and change their departure time to 4 pm User will need to go to **starting point** and change their location to 611 Savoline Rd.		
Question 2	**Answer/Screenshot**	**Score**	**Notes**
Can you show me how you would find directions to a medical center with the shortest commute time? Using current location and time at 5:30	User will need to **sort** the medical centers and click on **wait times** to sort the results by shortest wait times User will need to click on the first result to get the directions of their map		
Task 3			
Question 1	**Answer/Screenshot**	**Score**	**Notes**
Please show how you would go about making the map take up the size of your screen	User will click on the **fullscreen** button on the map to receive a full map view of the map		
Question 2	**Answer/Screenshot**	**Score**	**Notes**
Can you show me how to make this page show directions and no map?	User will click on the **hide map** button on the map to receive a full-page view of the directions		
Question 3	**Answer/Screenshot**	**Score**	**Notes**

Can you show me how to make this page show both directions and the map?	User will click on the **show map** button on the top of the screen to receive a page view consisting of a map and of the directions		
Question 4	**Answer/Screenshot**	**Score**	**Notes**
Please show how you would find the route to your destination by walking?	User will click on the **walk** icon at the top of the map to receive new directions that will be based on a walk		
Question 5	**Answer/Screenshot**	**Score**	**Notes**
Can you show me how would you change the destination to something else?	User will click on **back to results** on the pop-up notification to go back to the results page User will click on a different **result**		
Task 4			
Question 1	**Answer/Screenshot**	**Score**	**Notes**
Can you show me how to only see medical centers that are rated higher than 4 hearts?	User will click on **filter** and put the 4 on the text field of **ratings** option		
Question 2	**Answer/Screenshot**	**Score**	**Notes**
Please show how you would get the directions of this medical center as a message to your phone?	User will click on **get directions by text** on the bottom of the directions page User will enter in their		

	phone number and click on **submit**		

Observation and Performance Measurement Plans

(a) High-Level Questions - Questions related to our designs that we want to have answered, but we wouldn't ask the user directly:

1. Is the functionality clear to the users (function)
2. Are language and icons clear (language & visuals)
3. Can users figure out how to use our system (usability)
4. Would users find this system useful (usefulness)
5. Would our target users use our system (would use?)

(b) Screen & data capture

(c) Video & audio recording

(d) Note-taking

(e) Usability test software tool: Excel data logger

Note-Capturing Tools/Template to Facilitate Live Data Entry During Live Testing
Observations: objective, factual statement, eg. “user paused for a couple of seconds”
Inferences: conclusions based on observations & assumptions eg. “paused because: user didn’t know the format of data entry/process steps/tried to remember something”
Opinions: use “should” & “need” “need clearer data entry format instructions”

	Test 1	**Test 2**	**Test 3**	**Test 4**
Observations				
Inferences				
Opinions				

Post-Test Questionnaire

- How was your overall experience with the prototype? Describe it in only one word
- Were there any missing functionalities?
- Explain this product/experience to your friend
- From a scale of 1-10, how likely are you to recommend this to your friends and family?
- What did you dislike about the prototype (3 things)?
- What did you like about the prototype (3 things)?
- Were you able to get the results you were looking for?
- How would you rate this system:

  Ease

  Very Difficult to Use-1 2 3 4 5-Very Easy to Use

  Usefulness

  Not at All Useful-1 2 3 4 5-Very Useful

  Usage

  I would not use it-1 2 3 4 5-I would definitely use it

Research Protocol

1. **App prototype user testing** of **Canadians aged 18+ from various age ranges and education/literacy levels who are eligible for Canada's publicly funded healthcare services.**

2. **Investigators:**
Muhammad Osman (Osman) Amjad (m.amjad@mail.utoronto.ca),
Sheeza Aziz (sheeza.aziz@utoronto.ca),
Jawad Jawid (jawad.jawid@mail.utoronto.ca),
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Jenisha Thomas (jenisha.thomas@mail.utoronto.ca).

3. The purpose of our research is to understand the different challenges people with **various age ranges and education/literacy levels** will face in
Canadians aged 18+ from various age ranges and education/literacy levels are eligible for Canada's publicly funded healthcare services to help us derive requirements for the design of novel interactive computational media that is intended to be useful to **the target audience**. A brief description of our design concept is: we want to make healthcare more accessible for people of all education levels.

4. The process to be followed: We will brief the participants about the purpose of the study, explain the consent form to them, and ensure that they sign the consent form. We will then engage the participants in an online questionnaire, which is expected to take 10 minutes max.

5. Participant selection: Participants will be chosen from people of different education levels. They will be identified via social media and selected according to whether or not they fall into a unique education level. In general, they will be characterized by education level.

6. Relationships: Our relationship to the participants may be described as follows: none

7. Risk and benefit: There will be minimal risk to the participants, for example, that they feel that they have wasted their time. The only benefit will be to contribute to the education of the investigators. Participants are free to withdraw before or at any time during the study without the need to give any explanation.

8. Consent details: We will brief the participants about the purpose of the study, explain the consent form to them, and ensure that they consent to participate and sign the consent form.

9. Compensation: Participants will receive no compensation.

10. Information sought: The information to be sought is described in the attached questionnaire.

11. Confidentiality: Information will be kept confidential by the investigators. Names or other identifying or identified information will not be kept with the data. The only other use will be to include excerpts or copies in the assignment submitted, but names and other identifying or identified information will not be submitted.

Consent Form

I hereby consent to participate in a research study conducted by Sumuhash Mannogaran, Mahamad Jawad Jawid, Riyasat Talukder, Jenisha Thomas, Sheeza Aziz, and Muhammad Osman Amjad for an assignment in the University of Toronto Scarborough, Computer Science course CSCC10 Human-Computer Interaction.
I agree to participate in this study the purpose of which is to identify user design issues in our prototype.
I understand that

- The process will be done through an interview using zoom.
- I will receive no compensation for my participation.
- I am free to withdraw before or any time during the study without the need to give any explanation.
- All materials and results will be kept confidential, and, in particular, that my name and any identifying or identified information will not be associated with the data.

PARTICIPANT

Name (please print): N/A

Signature: N/A

Date: July 21, 2020

INVESTIGATOR(s)

Names: Sumuhash Mannogaran, Mahamad Jawad Jawid, Riyasat Talukder, Jenisha Thomas, Sheeza Aziz, and Muhammad Osman Amjad

Signature: N/A

Appendix - Assignment Attribution

- Everyone contributed equally to the high fidelity prototype created using Figma
- Introduction Paragraph: Jenisha
- Consent Forms/Research Protocol: Sumuhash, Osman, Sheeza
- Observation and Performance Measurement Plans: Sheeza
- Note-Capturing Tools/Template to Facilitate Live Data Entry During Live Testing: Sumuhash
- Test Script: Jawad (most), Osman, Jenisha
- Background and Post-Questionnaire: Riyasat