

# Assignment #7b: Refined Hi-Fi Prototype & Study Instruments

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CSCC10 Human-Computer Interaction  
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TA: Sho Conte

*Before A7b:*

<https://www.figma.com/file/VtizF1aoZyGfdVuTfm6aM2/OnTime>

*After A7b:*

<https://www.figma.com/file/emWlfJQTsqAGe8Kj0EeBDZ/OnTime-Updated-for-A7b>

# Table of Contents

<i>Usability Testing Plan.....</i>	<i>2</i>
<i>Consent Form.....</i>	<i>3</i>
<i>Research Protocol.....</i>	<i>4-5</i>
<i>Usability Testing Instruments</i>	
<i>Background (Pre-Study) Demographic Questions.....</i>	<i>6</i>
<i>Test Script .....</i>	<i>7-10</i>
<i>Observation and Performance Measurement Plans.....</i>	<i>11</i>
<i>Note-Capturing Tools to Facilitate Data Entry at Live</i>	
<i>Testing.....</i>	<i>12</i>
<i>Post-Test Questionnaire</i>	
<i>.....</i>	<i>13</i>
<i>Appendix - Pilot Testing Participants</i>	
<i>List.....</i>	<i>14</i>
<i>Appendix - Assignment Attribution.....</i>	
	<i>14</i>
<i>Appendix - Changes Log From A7a to A7b.....</i>	
	<i>14</i>

# 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!

## **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

## **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](mailto:m.amjad@mail.utoronto.ca)),

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3. The purpose of our research is to ask **Canadians aged 18+ from various age ranges and education/literacy levels that are eligible for Canada's publicly funded healthcare services** to use our prototype and in turn help us derive requirements that will help us improve our prototype.

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 the usability test, which is expected to take 20 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.

## Usability Testing Instruments

### **Background (Pre-Study) Demographic Questions**

<b>Participant Name</b>	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?
P1					
P2					
P3					
P4					
P5					

This makes it easier to take notes on the answers, and we can add additional rows if we end up having more than 5 participants.

## 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:

This new table will make it easier to take notes for each participant. In class, our usability testing notes were all over the place, so this should help with that.

We also updated some testing questions for clarity. Answers were updated to reflect the names of buttons we changed in A7b.

Q u e s t i o n s	Can you navigate away from the homepage and find a list of medical centers near your current location that you can go to travelling by car if you leave at 5:30pm?	Can you show me how to change your starting location to 611 Savoline Rd and your departure time to 4 pm?	Can you show me how you would get directions to a medical center with the shortest commute time?	Please show how you would go about making the map take up the size of your screen	Can you show me how to make this page show directions and no map?	Can you show me how to make this page show both directions and map?	Please show me how you would get the route to your destination by walking?	Can you show me how would you change the medical center destination to something else?	Can you show me how to only see medical centers that are rated higher than 4 hearts?	Please show how you would get the directions of this medical center as a message to your phone?
A n s w e r s	User will need to click on <b>find clinics/hospitals near you</b> button on the homepage User will need to click on the <b>use current location</b> checkmark box User will need to set the <b>departure time</b> to the current time	User will need to find the <b>departure time</b> button and change their departure time to 4 pm User will need to go	User will need to <b>sort</b> the medical centers and click on <b>wait times</b> to sort the results by shortest wait times	User will click on the <b>fullscreen</b> button on the map to receive a full map view of the map	User will click on the <b>hide map</b> button on the map to receive a full-page view of	User will click on the <b>show map</b> button on the top of the screen to receive a page view of a	User will click on the <b>walk</b> icon at the top of the map to receive new directions that will	User will click on <b>back to results</b> on the pop-up notification to go back to the results page User will click on a	User will click on <b>filter</b> and put the 4 on the text field of <b>ratings</b> option	User will click on <b>get directions by SMS</b> on the bottom of the directions page User will enter in their phone



	User will need to click on the <b>bus icon</b> as their method of commute User will need to find results by clicking on the <b>search</b> button	to <b>starting point</b> and change their location to 611 Savoline Rd.	User will need to click on the first result to get the directions of their map		the directions	map and the directions	be based on a walk	different <b>result</b>		number and click on <b>submit</b>
P 1										
P 2										
P 3										
P 4										
P 5										

## **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” eg. “need clearer data entry format instructions”

	Observations	Inferences	Opinions
P1			
P2			
P3			
P4			
P5			

This makes it easier to take notes on the answers, and we can add additional rows if we end up having more than 5 participants.

### 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?	On a scale of 1 to 5 how easy was it to use this system	On a scale of 1 to 5 how useful was it is this system	On a scale of 1 to 5 how likely are you to use this system
p 1										
p 2										
p 3										
p 4										
p 5										

## Appendix - Pilot Testing Participants List

1. Yiqian Wu
2. Siying Xu
3. Bryan Oladeji
4. Pui Lam Cheryl Chen
5. Myron Monteiro
6. Piyush Ukani

## Appendix - Assignment Attribution

- Everyone contributed equally to the high fidelity prototype updates
- Everyone contributed equally to creating the change log
- Everyone contributed equally to making the updates on this document

## Appendix - Changes Log From A7a to A7b

### Home Page

- No changes

### Search Page

- made “use current location” checkbox bigger

### Results Page

- moved the starting point and departure time fields to be under the commute icons
- made the text/field for starting point and departure times bigger and darker
- made sort/filter buttons bigger
- made radio buttons and text bigger for sort menu
- made checkboxes and text bigger for filter menu

- made results scrollable

### **Directions Page**

- changed “get directions by text” button to “get directions by SMS”