

SHMAP Test Plan

Bannan, Brent, Bruno, Sherpa, Spurlock

02/14/18

Table of Contents

Project Overview.....	2
Users.....	3
Methods.....	4
Test Tasks, Goals, & Metrics.....	4
Script.....	6
Appendix A.....	10

Project Overview

Purpose

The purpose of SHMAP is to create a more streamlined and efficient shopping experience for our users. The ability for the user to search for products on our mobile app increases findability in stores. SHMAP will partner with multiple companies with a variety of store layouts.

To ensure that our design affords these capabilities, we will be running usability tests. The purpose of our test is to find usability errors within our app layout and functionality. We will be able to pinpoint errors and the language preference in our app through usability testing. This will allow us to modify our functional prototype to fit the needs of our end-users.

Scope

The Blondes & Brunettes group will perform a usability test on the wireframes for the mobile application SHMAP. The test will cover important areas of the app including the location service, search bar, and departments listings. The group will gather quantitative data through metrics including errors and task completion, and qualitative data through post-test and post-task questions. After we gather the data, we will consider the results and make any necessary changes to improve the usability and overall experience of our app.

Size

We will be conducting a usability test with five different participants from our secondary audience, end-users. Each user will complete four tasks/scenarios using the wireframes we provide and will be asked one to two questions after each task. After the tasks are completed, the

user will take a post-test which consists of a system usability scale and three additional questions. Each usability test should take approximately 10-15 minutes.

Users

For our usability test, we will be utilizing test subjects that fall into our secondary audience/user group (see persona in **Appendix A**). Our secondary audience consists of users who:

- Regularly shop at small to medium sized stores
- Own a smartphone
- Are between the ages of 20 and 50
- Are looking to save time

For our testing, we will gather five participants. We decided on the the number five because research shows that researchers typically do not receive a large return after the fifth test subject. To gather participants, we will recruit college students over the age of 20, from Lebanon Valley College. Since we are sampling from such a small population and a small age range, there may be a sampling bias. If we were to test again in the future, we would most likely test on subjects who are slightly older. To ensure that the users we are testing are representative of our audience, we will have them answer a screener. Below are four questions that we will use as a screener:

- Are you older than 20?
- Do you have a smart-phone?
- Do you go shopping in physical stores on a regular basis?
- Would you consider yourself a busy person (limited time throughout the day)?

Methods

For our testing, we will be utilizing the traditional moderated method. We chose to conduct a traditional usability test because we would like to collect and analyze data from each task and also observe how the users interact with the wireframes. If we were to utilize a survey or online method, we would miss a lot of qualitative data that comes from thinking aloud and asking questions along the way.

Before we conduct our testing, we will utilize a screener to ensure that our test subjects are representative of our audience. For our tests, a moderator will be in the room with the user as they progress through the test. They will inform the user of each task as they complete them but will not provide any major guidance that would influence the user. They will ask follow up questions after each task and after the completion of the test. Additionally, we will monitor the user's actions by recording them with a mobile device or computer, for data analysis. We will administer a post-test to gather any additional qualitative data.

Test Tasks, Goals, and Metrics

Goals

The main goal of our usability test is to gain information on how users will interact with aspects of SHMAP's wireframes. We will be evaluating the following features of our SHMAP wireframes: navigation, search, and the language and wording.

In order to test the usability our app/wireframes, we developed four tasks based on our research questions. We will consider our usability testing successful if four out of five test

subjects can complete all four test tasks without any critical errors. We will consider a critical error when a user is unable to complete the task.

Task 1

Task: Choose the Palmyra CVS

Metrics: Task Completion, Errors

Research Question: Can users easily find the store and location that they want?

Element(s) we are testing: Navigation, Search, Language

Task 2

Task: Search for shampoo

Metrics: Task Completion, Errors

Research Question: Is our search bar findable?

Element(s) we are testing: Navigation, Search

Task 3

Task: Find the Glade Candle in the Home Decor department

Metrics: Task Completion, Errors

Research Question: Can users easily find our departments section? Will the users know to click the symbol?

Element(s) we are testing: Navigation

Task 4

Task: Change your store to Giant

Metrics: Task Completion, Errors

Research Question: How easy is it for a user to change their location/store?

Element(s) we are testing: Navigation

After the tasks are completed, we will administer a post test to gather qualitative data on our wireframes. We will be utilizing a System Usability Scale (SUS) to inquire about the general usability of our wireframes/app. After the SUS, we will ask three additional questions based on important elements:

- Is there anything that you would want to add to the app? Anything you would change?
- Do you prefer a horizontal or vertical map? Would you want it to change based on how you hold the phone.
- On a scale of 1 to 5, with five being very easy, how easy was it to predict where to go next based on the language and symbols used?

Script

Introduction:

“Hi, welcome. Thank you for coming.”

“I’m [name]. I am a member of a capstone group at Lebanon Valley College who is creating a start-up company called SHMAP. Our company is in the process of creating an app that features a shopping location service which would allow you to easily search for items and view them on a digital map. This is [name], who will be observing what we are doing today. We’ve brought you

here to see what you think of the app, what seems to work for you, what doesn't, and how you interact with certain elements of the designs.”

“We are going to be video recording what happens here today and taking notes, but it is for analysis only. It will only be seen by members of the testing team and our professor, Dr. Jeff Ritchie. During the testing it is important to remember that we are testing and evaluating the system, not you.”

“The testing we are going to do today will go like this: We will provide you with a scenario and task, which you will then complete with the designs we provide to you. After each task we will ask you a question that relates to the task you just completed. While completing the tasks, we would like you to “think aloud” as best as you can. We’d like you to speak your thoughts as often as you can. Just narrate what you’re doing, sort of as a play-by-play, telling us what you’re doing and why you’re doing it. After all of the tasks are completed, we will ask you some follow up questions. Are there any questions?”

“Now I’d like to read you what’s called a statement of informed consent. It sets out your rights as a person who is participating in this kind of research. As a participant in this study: You may stop at any time, ask questions at any time, or leave at any time. Your answers are kept confidential. Are there any question before we begin?”

“Now I’d like you to complete a couple of tasks with the wireframes we have given you. Work just as you would normally, narrating your thoughts as you go along. Please indicate when you are done with a task.”

Test:

For the following scenarios, imagine that you are actually using the app either while shopping in the store or preparing to go to the store:

Scenario 1: “You’re going to be visiting the CVS in Palmyra. Please indicate how you would go about choosing your store.”

Measurements:

Time	# of errors and type	Completed?

Follow-up Question(s): On a scale of one to five, with five being very easy, how easy do you think it would be to select the store you are looking for in the actual app?

Scenario 2: “You’re only getting a few things and you want to get in and out relatively quickly. In order to reduce the time spent searching, you decide to look up the items in SHMAP. Indicate what steps you would take to find the location of “Shampoo.” Please find the location of “Tresemme 24 Hour Body Shampoo.”

Measurements:

Time	# of errors and type	Completed?

Follow-up Question(s): On a scale of one to five, with five being very easy, how easy do you think it would be to search for an item in the actual app?

Scenario 3: “You decide that in addition to the shampoo, you would like to grab something to decorate your dorm room/apartment. You’re not sure what you want so you decide to browse through the departments. Indicate what steps you would take to find items in the ‘Home Decor’ Department. Find the Glade Candle. ”

Measurements:

Time	# of errors and type	Completed?

Follow-up Question(s):

- On a scale of one to five, with five being very easy, how easy do you think it would be to browse for items in the app?
 - What other departments would you expect to see listed?
-

Scenario 4: “While looking through CVS’ inventory you realize that they don’t have everything you need and that you’ll have to stop at Giant afterwards. Indicate how you would go about switching your store. ”

Measurements:

Time	# of errors and type	Completed?

Follow-up Question(s):

- On a scale of one to five, with five being very easy, how easy is it to change stores?
-

“This concludes the end of the test. We will now have you take a post-test that asks you about your experiences during this test. Once again, there is no wrong answer. The information we collect will be not be attached to your identity in any way. Thank you for participating in the test.

Do you have any questions or comments on the project?”

Appendix A: End-User Persona - Cal Davis



Cal Davis is a white, 21-year-old male, college student. Cal is a busy full-time college student who makes weekly trips to the store to pick up products he needs. Cal has a very busy schedule since he is taking 6 classes and has to practice every day for the tennis team. He already has to make time to study for his classes, complete homework, and complete other activities that pertain to his college lifestyle. In his free time, Cal enjoys attending sporting events and playing Dungeons and Dragons. He owns an iPhone 7, and like most people his age, he keeps up with the latest technology

Taking a weekly trip to the store is difficult for Cal to fit into his busy schedule. He hates wandering around the store to find the items that he needs. He can never find someone to assist him and gets easily frustrated with how much time he wastes searching for individual items out of the large inventory. Even though Cal goes to the same store every week he gets easily overwhelmed by the amount of products available and ends up leaving without products he needs because he doesn't have enough time.

The ideal shopping experience for Cal would be:

Cal drives 15 minutes to the store in order to pick up items that he needs. He pulls out his iPhone and looks up the first product that he needs on a mobile app. He immediately goes and picks up that product and then types in the search for his next product. Cal's shopping experience takes only 15 minutes because he was able to locate his desired items within a matter of seconds. Cal checks out of the store and heads back to school to make it to the basketball game on time. He is relieved that his shopping experience was so simple and fast.

Quotes:

"Trying to find all of my items on my own is a waste of time because I am not sure where everything is. I am very busy with homework and I just want to get in and out as quickly as possible."

"Shopping isn't my ideal 'free time' so being able to get that over and done with makes me able to fit in activities that I actually like to do, such as playing Dungeons and Dragons."