Aeron Langford, Grace Zhu, Megan Vo, ZK Lin
Section AC / BC | Assignment 3d
Feb 27th, 2019

Usability Testing Review

Usability Tests and Plan

Test Protocol

Testing consisted of three stages. The initial portion was a casual demographic interview in which we asked general questions about the participant's dog and their experience as a dog owner. We also went over the different mobile and physical components and informed the participant about the study. The second stage was the usability testing split into two tasks. In the first task, we asked the participant to log into the app, pair the device to the app, create a profile for the dog, and go through a scenario in which the dog is feeling anxious on a walk and the device's compatibility prediction needs to be corrected. The second task consisted of going through the mobile app to discover suggested compatible dogs at shelters and eventually adopt a dog. Finally, the last stage consisted of debriefing and asking questions about the participant's experience with the device and app.

Participants

Participant 1 (P1)

We met P1, an engineer at Microsoft, on Sunday, February 24th in Oasis. We chose P1 because she has past experience owning a dog and is currently dog-sitting a young border collie. We met in Oasis because it was a comfortable location for P1 and the tables are large enough for our paper prototype; however, the music was a bit too loud. For this test, Megan was facilitator, Aeron was notetaker, and ZK was computer. P1 suggested adding situational questions to obtain more information on social preferences.

Participant 2 (P2)

We met P2, a UW informatics undergraduate student, on Monday, February 25th in Mary Gates Hall. We selected P2 because she currently owns a 3-year-old Labradoodle. We conducted the test in Mary Gates Hall because it was a convenient location for our participant and the tables are large. For this test, Megan was facilitator, ZK was computer, Aeron was notetaker, and Grace was both computer and notetaker. P2 noted she would be unsure of gathering certain pieces of information during dog interactions.

Participant 3 (P3)

We met P3, a UW CSE undergraduate student, on Tuesday, February 26th in the atrium of CSE1. We chose P3 because he owns a 5-month-old maltipoo. The atrium was a convenient location for P3. For this test, Megan was facilitator, Grace was computer, ZK and Aeron were notetakers. P3 noted that his dog enjoys most other dogs and felt some of the information inputs were limiting.

Overall the testing ran fairly smoothly with all three participants. Our main revisions after each test involved improving our methods of collecting data. The details of these revisions are provided below.

Tasks

Task 1 Creating a new profile for their dog and override lights on collar with button

The participant gets the app and device and needs to set up their dog's profile. First they connect devices to the app (Figures 1-3). Then the participant/owner creates a profile for their dogs (Figures 4-9) and attaches the physical components to get ready for a walk after viewing a tutorial (Figures 11-16). Then we talk through a scenario in which the collar lights up blue; however, the owner senses their dog's nervousness and wants to override the compatibility decision (Figure 17). The owner then corrects the compiled false results through the use of the button (Figure 18) and the collar lights up yellow (Figure 19). After the walk, the owner decides whether to provide feedback of the walk (Figure 20). If yes, they will rate their walk and input the their pet's memorable interaction (Figure 21 - 22).
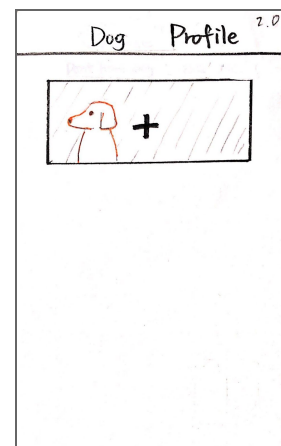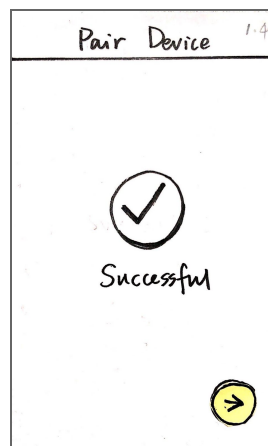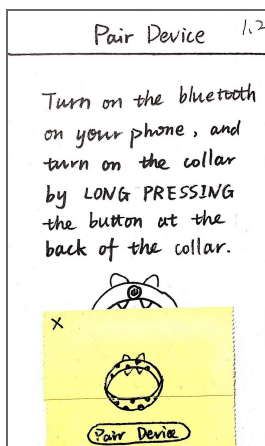
Figure 1. Tap search to find the Pawsitive device

Figure 2. Hold the power button on the collar to connect

Figure 3. Press the arrow to move on once pairing is successful

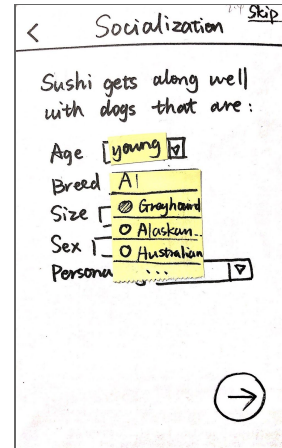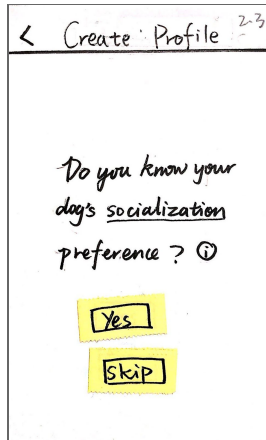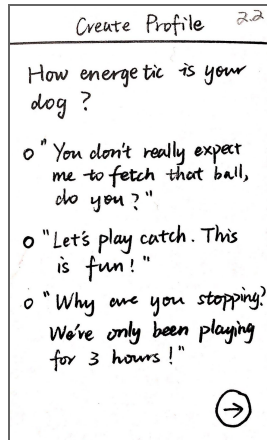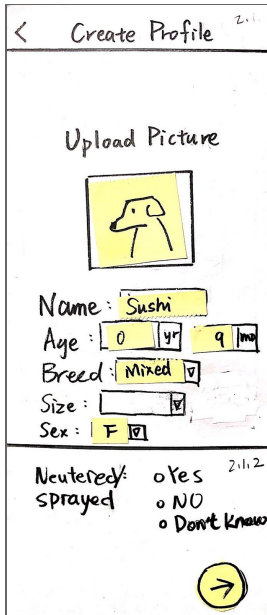Figure 4. Participant presses "+" to add a dog profile

< Create Profile   2.1

Upload Picture

Name : Sushi
Age : 0 yr 9 mo
Breed : Mixed ▾
Size : ▾
Sex : F ▾

Neutered/   o Yes   2.1.2
sprayed   o NO
             o Don't Know

→

Create Profile   2.2

How energetic is your dog?

o "You don't really expect me to fetch that ball, do you?"

o "Let's play catch. This is fun!"

o "Why are you stopping? We've only been playing for 3 hours!"

→

< Create Profile   2.3

Do you know your dog's socialization preference? ⓘ

Yes

Skip

→

< Socialization   Skip

Sushi gets along well with dogs that are:

Age [young ▾]
Breed A!
Size   ⊘ Grayhound
Sex   o Alaskan.
Persona o Australian ▾

→

Figure 5. The participant inputs basic information about their dog

Figure 6. The participant indicates their dog's personality by answering a list of questions

Figure 7. The participant presses "Yes" to indicate their dog's socialization preference

Figure 8. Participant taps and selects traits that their dog does get along with. Understands rest of fields are optional
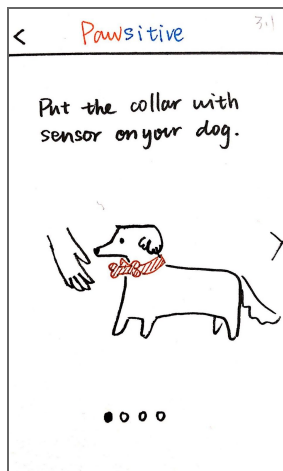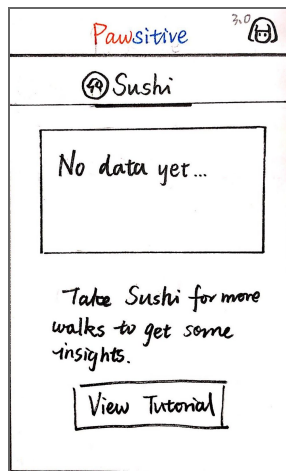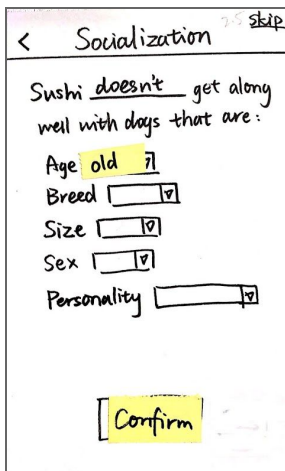

< Socialization   Skip

Sushi _doesn't_ get along well with dogs that are:

Age old ▾
Breed ▾
Size ▾
Sex ▾
Personality ▾

Confirm

Pawsitive   3.0

ⓐ Sushi

No data yet…

Take Sushi for more walks to get some insights.

View Tutorial

< Pawsitive   3.1

Put the collar with sensor on your dog.

>

● ● ● ●

< Pawsitive   3.2

Put the clicker on the handler of the leash.

<   >

● ● ● ●
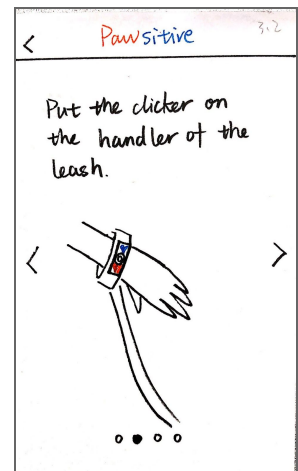
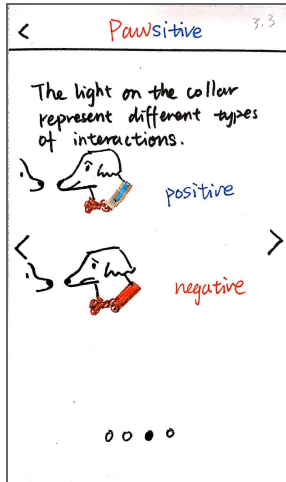Figure 9. Participant does similar thing to Figure 8 but with incompatible dogs

Figure 10. Participant clicks on "View Tutorial"

Figure 11. Participant swipes right to view next step

Figure 12. Participant swipes right

Figure 13. Participant swipes right
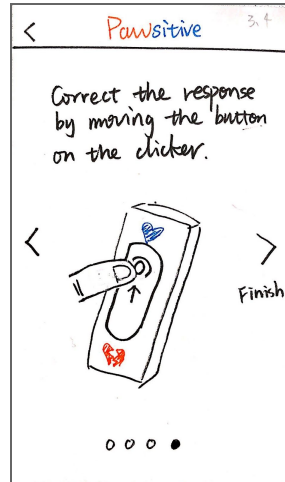
Figure 14. Participant swipes right to finish tutorial
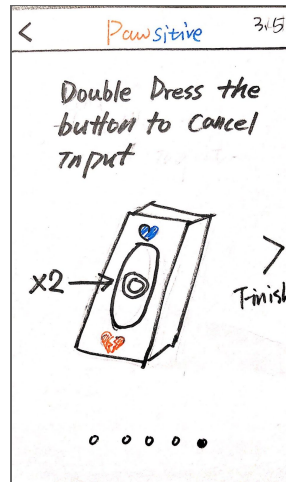
Figure 15. Participant swipes right to finish tutorial

Figure 16. Participant attaches button to leash

Figure 17. While on a walk, the collar turns blue

Figure 18. The owner senses the dog's nervousness and pushes the button towards themselves to override the device

Figure 19. The collar light switches to yellow
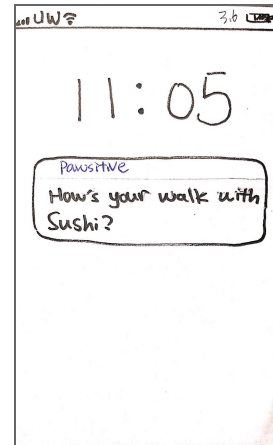
Figure 20. After walk, app pings participant and participant clicks on notification
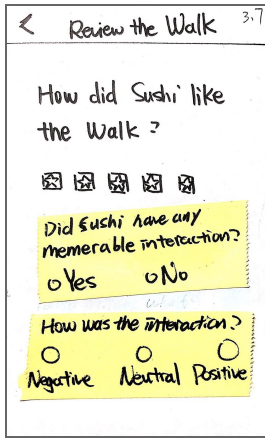
Figure 21. Participant rates their walk, then answers pop up questions
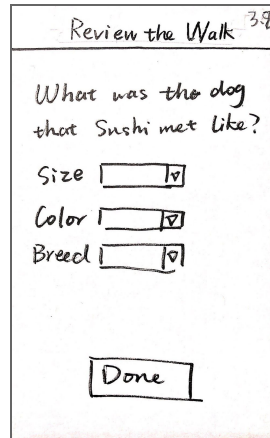
Figure 22. If they choose to input a memorable interaction from the previous screen, they fill out information about the other dog and press done

Task 2 Explore compatible dogs for adoption

After a few months of using Pawsitive, the owner decides that their dog, Sushi, would benefit from a permanent companion. On the Pawsitive home page, a panel appears asking "Want to adopt another dog to be with Sushi?" (Figure 23). These dogs are found based off of the compatible dog types listed above and the owner location, which can be edited, if incorrect. When the owner taps "View Results", various dogs from nearby shelters are presented (Figure 24). The owner clicks on "Read More" to be directed to the dog's adoption page on the shelter's website.
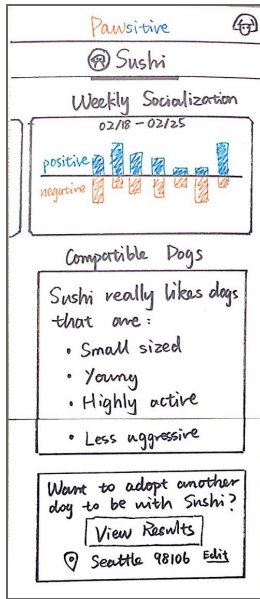
Figure 23. Participant views their dog's weekly socialization and scrolls down to see what dogs are available for adoption
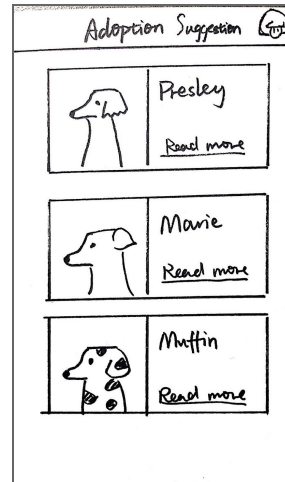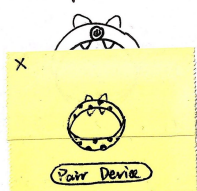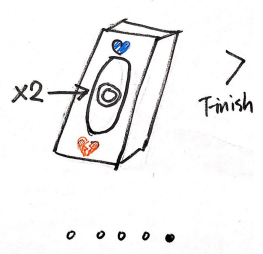

Figure 24. Participant clicks on dog profile and is taken to the shelter's website for more information

Identified Issues Table

Usability Test #1

Original Image	Description of the Incident	Severity	Revision	Revision Image
	Connect the physical devices to the app The participant was confused about which device (button or collar) she needed to connect since there was more than 1 physical device and both of them had buttons. She also needed guidance on	4	Provide a clearer introduction for which device they need to connect. Long hold to turn on collar (button still on collar, now inside)	

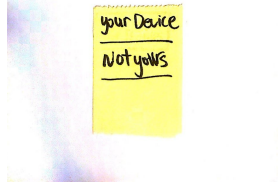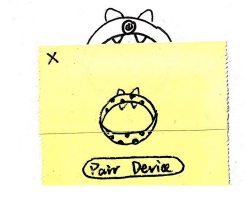|				
	how to connect the devices.			
	Put the Clicker on the handle of the leash The participant put the clicker on the handle of the leash in a uncomfortable position for her to use the button.	1	Add instruction to the page to indicate specifically to place clicker where most comfortable for thumb	
	Create Profile Personality The participant noted that it was hard for her to scale her dog's the personality. She would like to answer questions with scenario related to her dog's personality instead.	3	Ask personality test questions instead of requiring dog owners to rate their dog's personality	
No image	**Need a way to input information about walk** Doesn't have a way to add additional information about the type of dog on an encounter.	3	Added three screens that will ping the user with a notification about the recent walk, ask brief questions about the walk and allow the user to log the information of the dog	

			encountered.	
No image	**Walk through the Tutorial** Unsure about how to cancel an input.	4	Added a screen in the tutorial to inform the user.	

	Add neutered/spayed information about dog Can't find a place to input whether the dog is neutered/spayed, which is important to the user.	2	Added a question to ask whether dog is neutered/ spayed on profile page	

Usability Test #2

Original Image	Description of the Incident	Severity	Revision	Revision Image
	Unsure of sex and age of dog The participant noted that on a walk, she probably would not be able to take note of the sex and age of the dog and that those two fields were a unrealistic to fill out.	2	Delete the dropdowns associated with sex and age.	

Original Image	Description of the Incident	Severity	Revision	Revision Image
Pair Device 1.2 • Hold your sensor device close to your phone. • Press the ⏻ button to turn on. your Device Not yours	**Order of Pairing Devices** Participant was unsure if she should hold the button on the collar while pairing and was confused about the process order in general	2	Change the screen to have more clear instructions and "pop up" with the device to pair	Pair Device 1.2 Turn on the bluetooth on your phone, and turn on the collar by LONG PRESSING the button at the back of the collar. × Pair Device

Usability Test #3

Original Image	Description of the Incident	Severity	Revision	Revision Image
‹ Socialization Skip Sushi gets along well with dogs that are: Age [young ▼] Breed [▼] Size [small ▼] Sex [▼] Personality [▼] →	**Input their dog's socialization status** Unsure about how to select more than one breeds.	3	Added a drop down menu where the user can type, search and select multiple answers to the breed question.	‹ Socialization Skip Sushi gets along well with dogs that are: Age [young ▼] Breed [A] Size [⌀ Greyhound ○ Alaskan... Sex [○ Australian Persona ... ▼] →

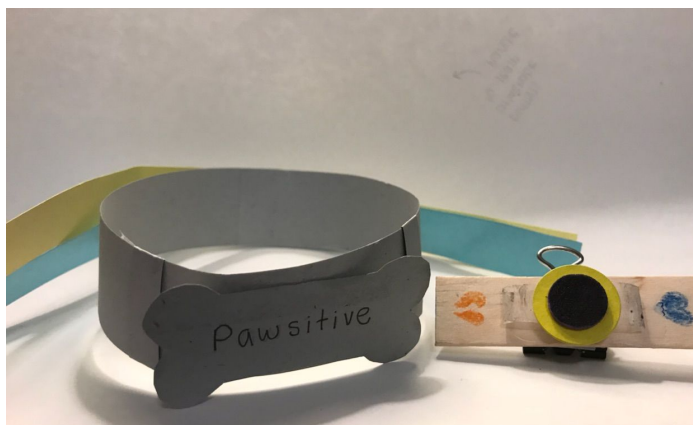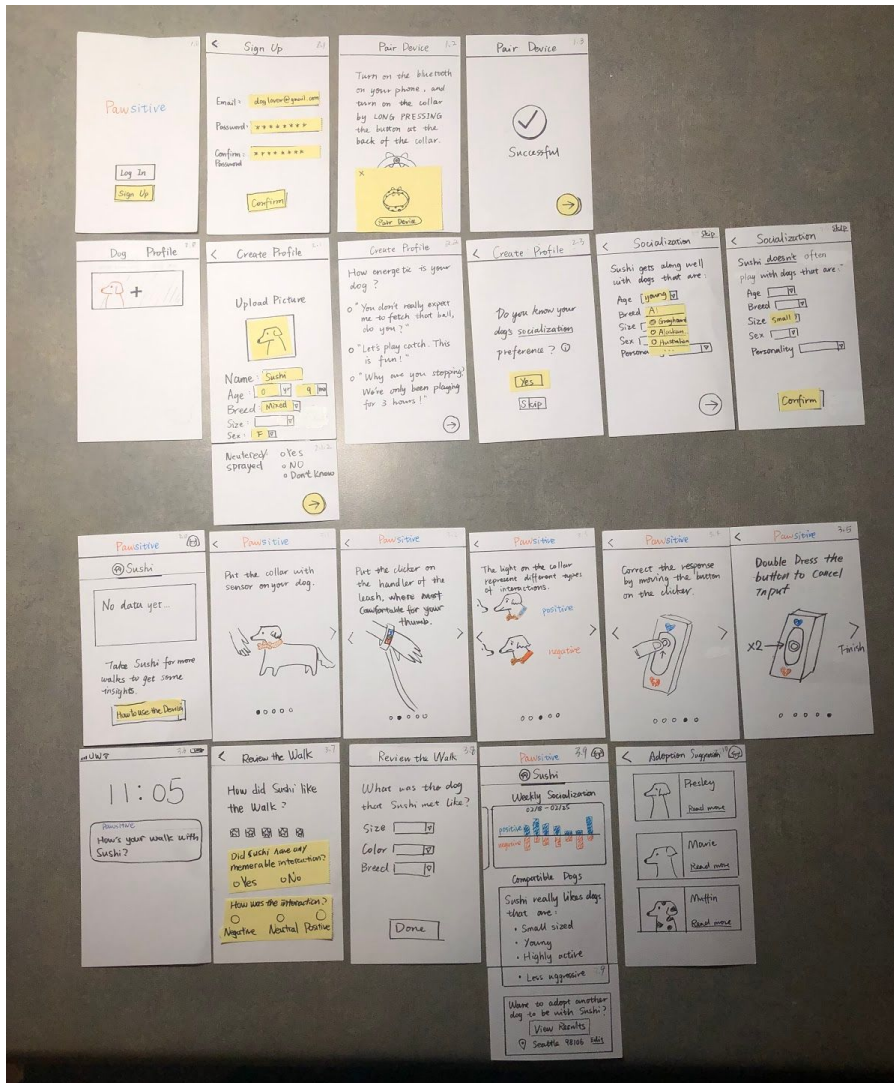|				
Socialization `skip` Sushi _doesn't_ get along well with dogs that are: Age `old` � Breed ☐ ▽ Size ☐ ▽ Sex ☐ ▽ Personality ☐ ▽ `[Confirm]`	**Input their dog's socialization status** Participant was not sure if "doesn't get along with" is the right term to use. Since his dog gets along with all kinds of dogs, but it depends on whether the other dog would like to interact with his dog.	1	Change the term "doesn't get along with"	**Socialization** `skip` Sushi _doesn't_ often play with dogs that are: Age ☐ ▽ Breed ☐ ▽ Size `small` ⊠ Sex ☐ ▽ Personality ☐ ▽ `[Confirm]`

Final Paper Prototype Images

Figure 26. Image of the final paper prototypes

Important Revisions

1. **Introduce scenarios to get better data**

One large revision to our design was the inclusion of questions involving short scenarios about a dog's social interactions in the profile creation. Through our testing, we found that some dog owners do not feel confident in ranking general aspects of their dog's personality, but have plenty of experience in observing their dog in various situations. Phrasing our questions through a scenario will prompt the participant to consider specific aspects that produce anxious feelings in the dogs and increase clarity for the participant.

2. **Request feedback after a walk**

Another big change we made to our design was adding a feature that allowed participants to input information about a memorable interaction on their walk that day. Prior to this addition, our device only relied on the initial profile data and user input through the button. However, the notification's aim is to encourage more awareness of the dog owner about their dog's socialization that day and to allow more specific information to be logged in over time. This feature will also improve data collection in the instance that the other dog does not have the Pawsitive collar.

3. **Allowing multiple selections in social preferences**

Another big revision made is that we now allow multiple choices to be inputted when the users fill out the compatible/incompatible dogs' characteristics form. Through the usability testing, we received the feedback that P3 would like to input multiple breeds since his dog gets along with multiple breeds. This revision is also helpful to our data analysis by obtaining more information about the dog's preferences, which will make our prediction more accurate. It also matched realistic inputs for the other participants as well.