**Usability Test**

**Tasks**

Task 1: You have lost your dog. Please locate your dog using the device.

Task 2: You aren’t near your dog and miss him. Find a way to view your dog using the device.

Task 3: Your dog has been barking uncontrollably. Make him stop.

**General Comments**

Person 1:

Depends on interaction with device

Person 2

Good for using in the trails in MN to find his older dog because she runs away a lot

“Can’t think of myself actually using it”

Person 3

Likes the light feature

“Can’t say how much I would use it”

Currently has a shock/vibrate collar with a light on it and if they were comparable in price she might have considered buying this when she went looking for the other collar.

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**Data**

**Difficulty (1 Easiest, 7 Most Difficult)** - **“Rate how hard you think this task will be”**

**Person 1**

Task 1: 3

Task 2: 2

Task 3: 2

**Person 2**

Task 1: 2

Task 2: 1

Task 3: 1

**Person 3**

Task 1: 2

Task 2: 1

Task 3: 1

**Difficulty Average**

Task 1: 2.33

Task 2: 1.33

Task 3: 1.33

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**Usability (1 Worst, 7 Best) - “Rate the usability of this device.”**

**Person 1:**

5. Simple and easy to use, it would be very usable if the device works super easily

**Person 2:**

7. Very usable

**Person 3:**

7. Very very usable.

**Usability Average:** 6.33

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**Usability Errors (Unnecessary actions or mistakes taken by user)**

**Person 1:**

Task 1: 1

Task 2: 0

Task 3: 2

**Person 2:**

Task 1: 0

Task 2: 0

Task 3: 0

**Person 3:**

Task 1: 0

Task 2: 0

Task 3: 0

**Error Average**

Task 1: .33

Task 2: 0

Task 3: .67

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**Time (Elapsed time it takes for user to start and finish the three tasks)**

**Person 1**

Task 1: 40.51 seconds

Task 2: 8.32 seconds

Task 3: 1 minute 3 seconds

**Person 2**

Task 1: 5.25 seconds

Task 2: 5.27 seconds

Task 3: 11.57 seconds

**Person 3**

Task 1: 6.03 seconds

Task 2: 2.10 seconds

Task 3: 5.12 seconds

**Average**

**Task 1:** 17.26 seconds

**Task 2:** 15.69 seconds

**Task 3:** 26.56 seconds

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**Analysis of Data**

**Difficulty:**

Task 1 is on average more difficult for users to do. Task 2 and 3 on average are both as difficult, but easier than task 1. Overall however, the tasks aren’t too difficult to complete. Task 1 is more difficult to do because it requires more time to complete, than the other two tasks, and constant communication between the GPS and device.

**Usability**

Person 1 had a harder time using the app over Person 2 and 3. However, overall, all our testers thought that our device was simple and easy to use. Through our analysis, we believe our device had a high usability score because each task required very minimal actions needed to be taken.

**Usability Errors**

With a total of 3 usability errors, Person 1 had the most issues when using our device. Person 2 and Person 3 both had 0 usability errors. Based on the average of each task, Task 3 is more prone to usability errors, followed by Task 1 and then Task 2. Our analysis suggests that Task 3 is more prone to errors because there are no clear indication of where the buzz or speak button is until one clicked on the camera button. Task 1 is more prone to errors than Task 2 because to some people, the word “camera” can correlate to the user’s own phone camera, causing them to assume to press something else. Task 2 has zero errors because the word “maps” directly correlates to locating the dog to all the users.

**Time Elapsed**

Based on the average elapsed time, task 3 took the longest to complete, followed by task 1, and then task 2. The average time it takes to complete task 1 and 2 are fairly similar, while task 3 contrasts greatly. Our analysis suggests that Task 3 took longer because there was no clear indication of where the buzz or speak button was until one clicked on the camera. We believe that task 1 and 2 were also quicker to accomplish because they only required a minimum of one action to take, while task 3 requires a minimum of 2 actions to take.

**Usability Trends**

Task 3 has the most issues in terms of usability. It took the longest to complete and it had the most usability errors. We believe this is the case because there are many actions needed to be taken on the device in order to complete the task versus the other two task. Task 1 was easier to complete than Task 3 but still slightly more difficult than Task 2. Task 1 required more time and had more usability errors than Task 2. We believe this is the case because it isn’t as straight forward as navigating to the map. Overall however, our users believed that the app was still very easy to use, meaning that there should not be too much in the UI for us to change in the future.

**User’s Difficulty Assumptions vs Reality**

Most users believed that Task 1 would be the most difficult and that Task 2 and 3 would be easier than Task 1. In reality, Task 3 was the most difficult to complete. Task 1 was easier than assumed and Task 2 was just as easy as they assumed. This means that we can find ways to make Task 3 easier to complete.

**Possible Changes to UI**

The task that stood out the most was Task 3. One way to make this task easier and quicker to complete is to add the “Buzz” and “Speak” buttons to the notification popup, or make the notification send you directly to the camera screen when you click OK. Task 1 could be improved slightly by renaming the “Camera” button to “Monitor”.