ObservAnt Usability Test Plan

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SCENARIO 1: NAÏVE USE CASE

Users should enter and submit measurements and pictures of ant mounds and surrounding areas with only a brief into to the purpose of the app and no explicit instruction on app use.

Test Goals

Determine intuitiveness of app design

> -Can users enter data/pictures for a single ant mound without training or a tutorial?

Quantitative Measurement List

Successes - number/fraction of users successfully completed all subtasks on the first attempt

Non-fatal errors - number of errors made by users from which they were able to recover without help from an experimenter

Fatal errors - number of errors made by users from which they could not recover without help, or could not recover from at all.

Help requests – number of times user asked for help from experimenter

Qualitative Measurement List

Frustration – statements of frustration, exasperated vocalizations, angry/frustrated facial expressions, defeated body language

Confusion – statements of confusion, questioning vocalizations, confused facial expressions, defeated body language

*Both frustration and confusion events will be used as cues for probing questions about the user's experience

Task List

Users are expected to:

1) press "Start Transect"
2) take picture of surrounding environment
3) use ruler (cm and inches) to measure a fake ant mound
4) enter measurement data into appropriate text boxes in app

5) select continue transect and repeat steps 2-3 for all remaining fake ant mounds in the simulated transect
6) select “End transect” at the end of the simulated transect
7) take picture of surrounding environment

Potential Observations

- Users may accidentally press end transect (due to closeness of buttons)
- Users may become confused by continuing/ending transects after recording data for a single ant mound.
- Users may not understand that dimensions are intended to be measured with measurement tools rather than estimated
- Users may accidentally or purposefully insert measurements in inches instead of centimeters.

Scenario Description

A series of ant mounds will be simulated by masking tape on the floor in the basement of the Meese Center.

“You are a student in a high school biology class, your teacher has given you an assignment which requires you to use an app to record size and location of ant mounds, and describe the materials that ants have used to create the ant mounds. She says the appropriate method of collecting data is to walk paths, called transects, and look for ant mounds on that path. When you see an ant mound, you should collect data about the surrounding environment, the ant mound size, and its contents.”

*These instructions are purposefully vague to represent a suboptimal teacher introduction or for a student who wasn’t in class during the teacher instruction

“Take the phone in front of you and use the app to collect information about the ant mound. The beginning of the hallway marks the start of your path and these cones represent ant mounds.”

Post-scenario Interview Questions

What are your first impressions? Follow up based on user responses.

What, if anything, was confusing to you?

What, if anything, was difficult for you to do?

SCENARIO 2: TRAINED USE CASE

Experimenters will walk users through typical a typical use case, demonstrating how the app should be used and answering any questions participants have about app use.

Quantitative Measurement List

Successes - number/fraction of users successfully completed all subtasks on the first attempt

Non-fatal errors - number of errors made by users from which they were able to recover without help from an experimenter

Fatal errors - number of errors made by users from which they could not recover without help, or could not recover from at all.

Help requests – number of times user asked for help from experimenter

Qualitative Measurement List

Frustration – statements of frustration, exasperated vocalizations, angry/frustrated facial expressions, defeated body language

Confusion – statements of confusion, questioning vocalizations, confused facial expressions, defeated body language

*Both frustration and confusion events will be used as cues for probing questions about the user's experience

Task List

Users are expected to:

1) press "Start Transect"
2) take picture of surrounding environment
3) enter measurement data into appropriate text boxes in app
4) select continue transect and repeat steps 2-3 for all remaining fake ant mounds in the simulated transect
5) select "End transect" at the end of the simulated transect
6) take picture of surrounding environment

Potential Observations

- Users may accidentally press end transect (due to closeness of buttons)

- Users may become confused by continuing/ending transects after recording data for a single ant mound.
- Users may not understand that dimensions are intended to be measured with measurement tools rather than estimated
- Users may accidentally or purposefully insert measurements in inches instead of centimeters.

Scenario Description

*Undergrad student walks participant through typical use case (add single ant mounds to transect without mistakes)

Users then repeat the same task as the first scenario but after training. Users will complete this task seated in easy view of experimenters and note-takers.

Post-scenario Interview Questions

Now that you've been used the app a couple times, what do you think? Follow up based on user responses.

What, if anything, was confusing/frustrating to you?

What, if anything, was difficult for you to do?

What features would you like to change, add, or remove?

SCENARIO 3: NO MOUND CASE

Users should navigate the app to start a new transect in the event that they find no ant mounds after completing a transect. This will not be covered in the experimenter training.

Test Goals

Determine if users understand how to navigate the app when they see no mound

Quantitative Measurement List

Successes - number/fraction of users successfully completed all subtasks on the first attempt

Non-fatal errors - number of errors made by users from which they were able to recover without help from an experimenter

Fatal errors - number of errors made by users from which they could not recover without help, or could not recover from at all.

Help requests – number of times user asked for help from experimenter

Qualitative Measurement List

Frustration – statements of frustration, exasperated vocalizations, angry/frustrated facial expressions, defeated body language

Confusion – statements of confusion, questioning vocalizations, confused facial expressions, defeated body language

*Both frustration and confusion events will be used as cues for probing questions about the user's experience

Task List

1) press "Start Transect"
2) select "End transect" at the end of the simulated transect
3) take picture of surrounding environment

Potential Observations

- Users may become confused by where they are in the app after completing data entry for a transect, thinking that they have been returned to an earlier menu or advanced to a new menu.

Scenario Description

User should be seated

“Now pretend that as you’re walking along a transect you find no mounds, what would you do?”

Post-scenario Interview Questions

What, if anything, was confusing/frustrating to you?

What, if anything, was difficult for you to do?

What features would you like to change, add, or remove?

SCENARIO 4: EDIT ERRORS and PICTURES, and COUNT SUBMISSIONS

Users will be told that they "realized they made a mistake in a previous submission" and are asked how they can edit that information.

Test Goals

Determine if users are able to navigate to the appropriate page and edit mistakes made in previous submissions.

Quantitative Measurement List

Successes - number/fraction of users successfully completed all subtasks on the first attempt

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Qualitative Measurement List

Frustration – statements of frustration, exasperated vocalizations, angry/frustrated facial expressions, defeated body language

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*Both frustration and confusion events will be used as cues for probing questions about the user's experience

Task List

1) press "Start Transect"
2) take picture of surrounding environment
3) enter measurement data into appropriate text boxes in app
4) select continue transect and repeat steps 2-3 for all remaining fake ant mounds in the simulated transect
5) select "End transect" at the end of the simulated transect
6) take picture of surrounding environment

7) Review data, edit data (change picture, edit data entered, count previous submissions)

Potential Observations

- Participants may become frustrated with the need to go through the whole process, potentially adding fake data, to review previous submissions and to make changes to submitted data.

Scenario Description

Participant should be seated next to experimenter

1) "Now imagine that you've accidentally added everything in inches instead of centimeters. Show me what you'd do to fix that."
2) "Now take a picture…… and then assume that you don't like that picture. How would you take another picture?"
3) "You suddenly remember that your teacher told you to complete 10 transects as part of your assignment. How could you check to see how many transects you've completed?"

*All three of the scenarios will be presented to users.

Post-Scenario Interview Questions

What, if anything, was confusing/frustrating to you?

What features would you like to change, add, or remove?

PRE-SCENARIO INTERVIEW QUESTIONS

What are your first impressions?

1. How many years have you used a smart phone?

2. Please indicate your level of agreement to the follow statement:

I am very interested in the testing of this application.

    1. Strongly agree
    2. Agree
    3. Neutral
    4. Disagree
    5. Strongly disagree

POST-USABILITY TEST QUESTIONNAIRES

Standard Questions

1. Please indicate your level of agreement to the follow statement:

Overall, this application was easy to perform the task.

    1. Strongly agree
    2. Agree
    3. Neutral
    4. Disagree
    5. Strongly disagree

2. Please indicate your level of agreement to the follow statement:

I enjoy using this application.

    1. Very much
    2. A little bit

3. Neutral
4. Not very much
5. Not at all

3. Please indicate your level of agreement to the follow statement:

I would use this application again.

1. Strongly agree
2. Agree
3. Neutral
4. Disagree
5. Strongly disagree

Additional Questions

What about the app workflow, how would you describe your experience today? What changes do you think would improve that experience for others?

Do you think that others could use this app successfully without training?

Do you think that the instruction you received was sufficient to allow you to use the app successfully? If not, what would you like to see changed to improve instruction?

What is your opinion about the app's aesthetics? Would you like to change anything? If so, what?

Is there anything that you'd like to mention that you haven't had a chance to so far? If so, what?

System Usability Scale

	Strongly Disagree				Strongly Agree
1. I think that I would like to use this app frequently	1	2	3	4	5
2. I found the app unnecessarily complex	1	2	3	4	5
3. I thought the app was easy to use	1	2	3	4	5
4. I think that I would need the support of a technical person to be able to use this app	1	2	3	4	5
5. I found the various functions in this app were well integrated	1	2	3	4	5
6. I thought there was too much inconsistency in this app	1	2	3	4	5
7. I would imagine that most people would learn to use this app very quickly	1	2	3	4	5
8. I found the app very cumbersome to use	1	2	3	4	5
9. I felt very confident using the app	1	2	3	4	5
10. I needed to learn a lot of things before I could get going with this app	1	2	3	4	5

BUG REPORT FORM

ID#	Bug Name	Bug Count	Reported by	Description and Instructions for replication