P7: Experience Evaluation Plan & Simple Evaluation

Team Topiary | HCDE 318

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Part I: Basic Evaluation Plan:

Application Scenario: You are a gardener who is looking for a tool to help you better manage your gardening activities and also help make your gardening experience more emotionally fulfilling. You want your tool to provide you with live information about your plant so you can always feel close to your plant, even when you are physically far away.

Task 1 - Sign up and Create an Account with the App
Completion Criteria: In order to successfully complete this task, our participants will have to successfully set up a username, password, and email to use with their account. They will also have to successfully complete a questionnaire, that will provide them a more personalized experience with the app and learn about their motivations for gardening. Finally, the participant will have to enable the necessary permissions needed to use the app as well as adding their name, a profile photo, bio, and favorite plants.

Task 2 - Add a New Plant to Your Account
Completion Criteria: In order to successfully complete the second task, the participants must first go through the process of selecting the kind of plant they are adding, as well as the exact breed and life cycle stage it is in. Next, they must successfully sync a Plant Assistant™ with their device for the plant. Finally, depending on their personal preference, they can choose to give their plant a nickname and upload a photo of it.

Task 3 - Open a Plant Profile and See the Health and Status of the Plant
Completion Criteria: For the third task, the participants must select a plant from the dashboard to view their profile. Following this, they are required to look through all the various tabs of the plant's profile, including the health, care, notification, and cycle tabs.

Participant Profiles:

1. **Participant 1 (P1):** A 21 year old female college student who studies Environmental Science. Since arriving in college, her plant career has boomed, and she now maintains a diverse indoor garden of a wide variety of plants ranging from Bonsai trees to tropical vine plants. She finds taking care of her plants as a way to destress and emotionally fulfilling.
2. **Participant 2 (P2):** A 20 year old female college student who studies Public Health. She likes plants and their aesthetic but doesn't currently keep any plants because of her busy college lifestyle and the fact she lives in a small apartment. She said she might be interested in keeping some in the future if they are low maintenance and small.
3. **Participant 3 (P3):** A 19 year old male college student who studies Electrical Engineering. He lives at home with his family and they have a very small garden at home, but he contributes very little to it, and his mother and siblings keep it intact. He is usually very busy, but sometimes he may water the plants or organize where they go.
4. **Participant 4 (P4):** A 21 year old female college student who studies Biochemistry. Her family back home has a big garden that she helps out with sometimes but now she lives in a small dorm where she cannot take care of any plants. She has a few houseplants and succulents but they are very low maintenance.

Part II Simple Evaluation:

Motivations: Our motivations to conduct usability testing is to better understand how our application works and to test it on a diverse group of participants. Since our app is aimed to help, assist, and enhance all types of gardeners experiences, we want users from a wide variety of technical and demographic backgrounds to test it. Through the testing, we hope to receive feedback on our design, specifically what needs improvement as well as what is good. We are specifically looking for feedback on how our plant profiles affect their user experience, does it make their connections to their plants more personal? We also would like feedback on what they think of our user interface at this stage, and finally their ideas on pairing a physical device with the app to collect live plant metrics.

Method: We asked a series of question before testing and after testing.

1. Pre-Testing Questions:
We asked the following questions to get background information about our users:
1. What is your major?
2. How much experience do you have taking care of plants?
3. What is your living situation?

2. Task Completion:
During this step, the participants completed the three tasks with no help from our team except when they were stuck.

3. Post-Testing Questions:
1. What do you think about the overall experience of using the app?
2. What do you think about the beginning questionnaire?
3. What suggestions do you have for improvements for the app?
4. If there was any feature you could add to the app, what would it be?

Findings:

Finding 1: Some terminology is too advanced or technical
Throughout our testing, one common thing noted among participants who considered themselves beginners is that they did not understand what some specific terms meant. For example, in the "add a plant" task, there was a question asking about the life stage of the plant with options such as "Germination," "Immature", and "Propagation." Participant one was able to understand what these terms meant as she was an Environmental Science major. However, P2 and P4 did not understand what these options were and just chose an option to get to the next screen. P3 said that on the "Open a Plant Profile" task he felt confused on the different metrics being displayed on the health bar, mentioning he did not know some of the metrics being displayed, such as the difference between the water and humidity metrics.

Suggestion:
Our suggestion is to simplify the language used in the app. A lot of the language used is more technical or scientific and requires specialized knowledge. Using more simplistic terminology could help solve beginner confusion. Another idea is to have options for help or explanations available. If a beginner was confused on what a term meant, they

could click an "Explain More" button and get a short definition or explanation to help them.

Finding 2: Task hierarchy was not clear

During our "add a plant" task the order of tasks to be completed, paired with the plant terminology, left many users confused. Users had to first indicate the "type" of plant they wanted to add, e.g. tree, vegetable, flower, root/tuber; they then would have to specify the "breed" of the plant. The option hierarchy and the task which we were tasking our users to do at this point ended up unintuitive to most participants. For example, P2 was confused when we asked her to select the breed of the plant but she thought that the type of the plant, "Aloe Vera," was the breed. P3 noted that in the process of adding a plant, it would be useful to display the type of plant they are uploading information for in the process so as to prevent the user from forgetting which plant they are uploading information for.

Suggestion:
Our suggestion is to simplify the plant-adding process by just having users enter in the breed/common name of the plant; the app won't need to know the "type" of plant by that point. If the user does not know what their plant is, they can post in the community or ask an expert. Additionally, we also suggest to include the common name of the plant they are uploading for throughout the rest of the add a plant process to ensure users do not forget which plant they are uploading information for.

Finding 3: Questionnaire answers don't match what participants think

During our "Set-up an account" task, our participants felt limited and restricted by the answers provided to several of the questions in the questionnaire. We asked questions such as the user's goals for using the app and their motivations for gardening and provided four options for users to choose from; some users said none of the choices represented them, and others said they wished they could have chosen more than one answer. Additionally, other users felt the answers overlapped each other as well. For example, in the question about the interest in plant care, P4 found that none of the options matched her true interest and she chose the "I love nature" option since it was the closest. P3 noted that he felt several of the answers to the questions were very similar and overlapped with each other. He mentioned that he would prefer a greater diversity of possible responses.

Suggestion:

Our suggestion is to first rewrite the answer options and add more options so the answers can encompass more viewpoints. Another suggestion is to allow users to select more than one option if they relate to multiple answers. We also will add an "Other" option, where users may type in an answer if they want to go more in depth.

Overall Strengths

One thing that many participants noted was that they liked the overall aesthetic appeal of the device. P1 and P2 both called the design of the app "cute" and said they liked the icons of the plants and found it to be welcoming. Users liked the overall feel of the app, and many participants also stated that they liked the information we provided and found it useful. They found that the metrics collected from the plant device to be particularly helpful and they liked the personalized recommendations based on each metric as it allowed them to understand the reasoning of what they do.

Overall, participants responded positively to the direction in which we are taking our app. They liked the goal and the overall purpose and mostly gave suggestions on implementation and navigational components.