Usability Study

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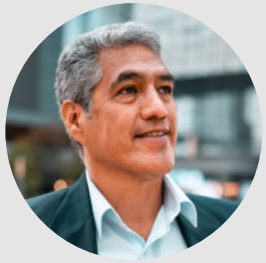
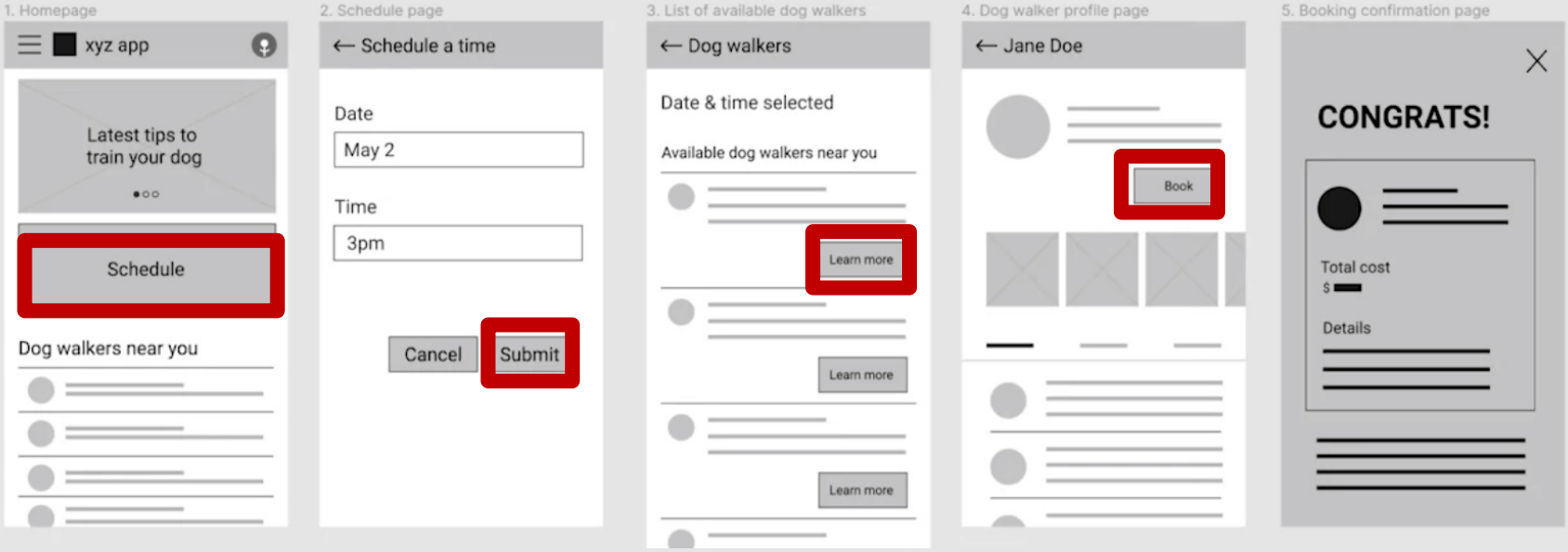
Low-fi Prototype



Our **DogWalker** app will show tips to select a dog walker which will affect non-tech-savvy users by helping users hire the right dog walkers. We will measure effectiveness by tracking the booking rate in the app.



Is this a good design?

Design Sprint Day 5

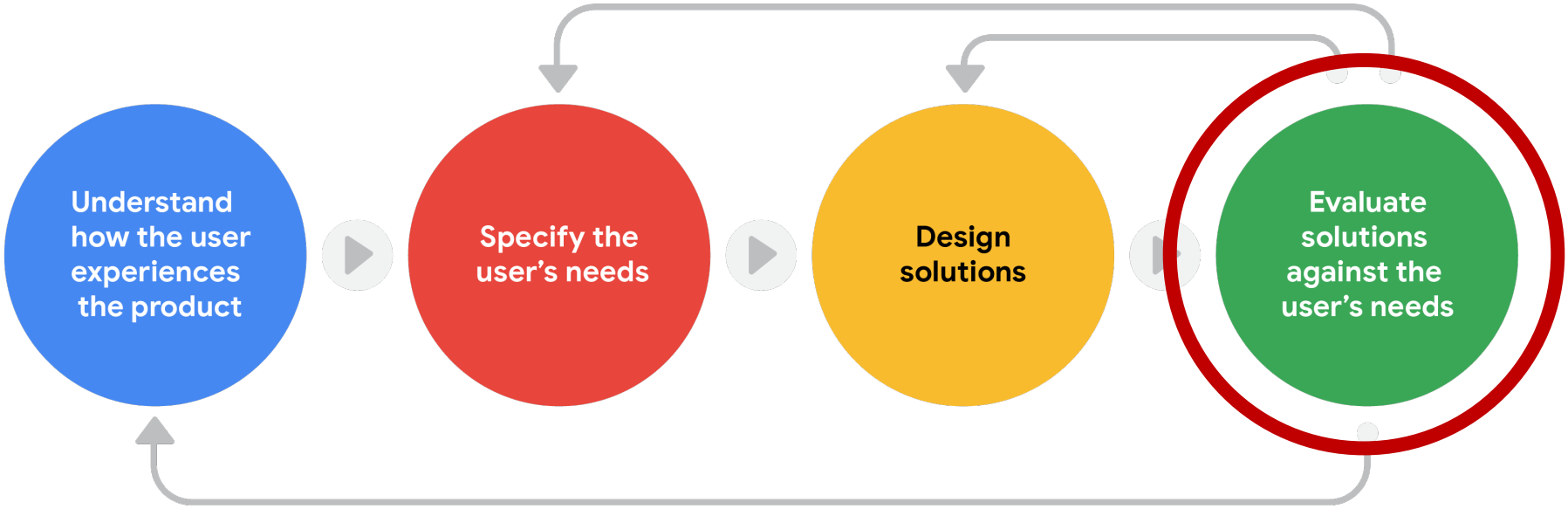
1. Plan the usability study (Days 2 – 4)
2. Conduct usability study
   - Moderated or unmoderated
3. Synthesize data and gain insights
4. Improve your design (and then iterate)

Usability Study

- A research method that assesses how easy it is for users to complete core tasks in a design

Outline: Usability Study

- Plan
- Research
- Synthesize
- Improve and iterate



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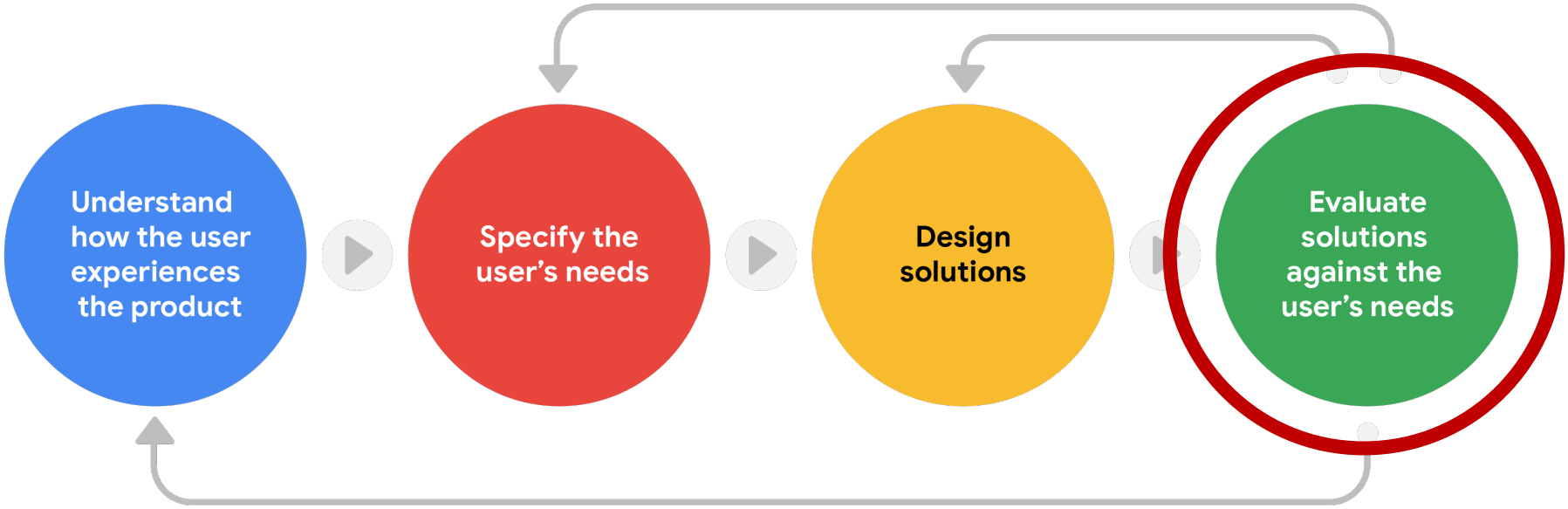


7 Key Elements of a Good Plan

1. Project background
2. Research goals
3. Detailed research questions
4. Key performance indicators (KPIs)
5. Methodology
6. Participants
7. Script & interview questions

Goals

- Fundamental
  - Why we built the product?
- ***Design***
  - ***How to build the product?***
- Post-launch
  - Whether the product works as expected?

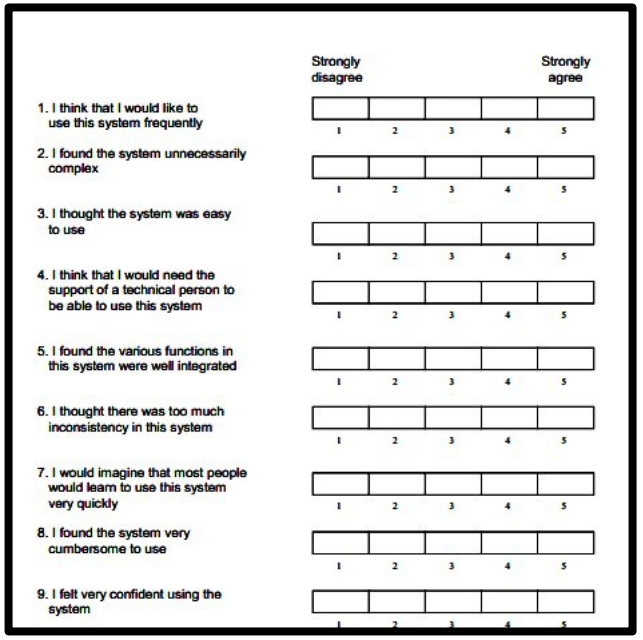
- E.g., “to make DogWalker app easier to use for non-tech savvy users”

Research Questions

- Research questions
  - Questions you want your research to answer
  - E.g., “what frustrated users most about finding a dog walker through the current design?”
- Should
  - Align with the goals
  - Be actionable
  - Be specific
  - Not lead users
- Not to confuse with interview questions (in script)
  - Questions you plan to asks testers

Key performance indicators (KPIs)

- Time on task
- Use of navigation vs. search
- User error rates
  - “Wrong icon clicked!”
- Drop-off rates
  - “How many users quit before
  - finishing a purchase?”
- Conversion rates
  - “How many users complete the task?”
- System Usability Scale (SUS)
  - “Would you use the app in your daily life?”
- Net Promoter Score (NPS)
  - “Would you recommend this product to a friend or colleague?”



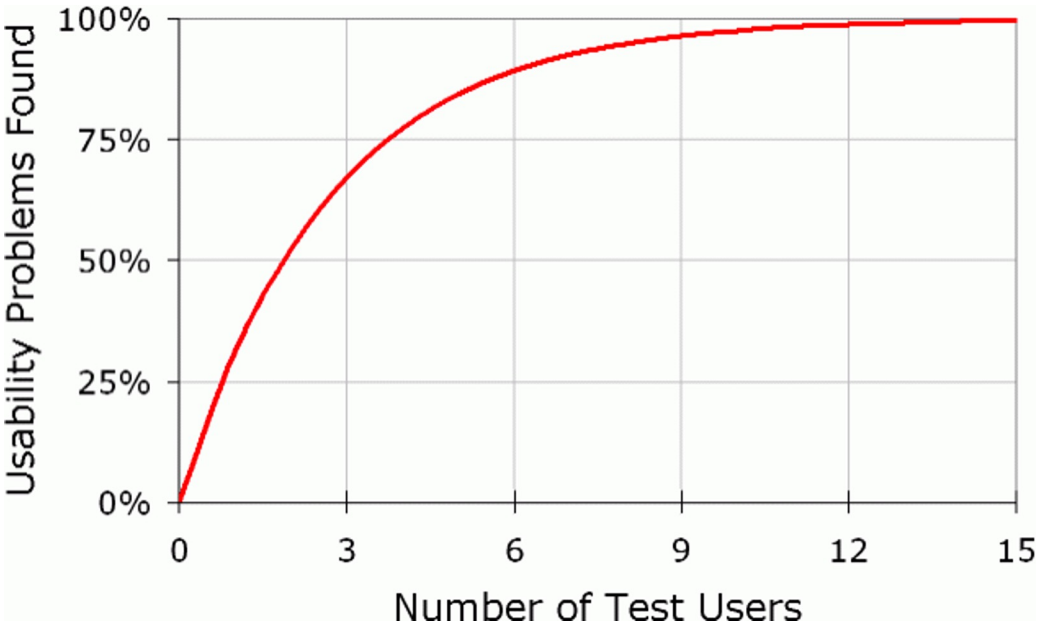
Moderated vs. Unmoderated

- Whether there's a person guides participants through the study in real time

	Pros	Cons
Moderated user studies	• Guidance • Follow up questions • Rapport building	• Bias • Less flexibility • Agreement issues
Unmoderated user studies	• In real-world • Time- and space-free • Feedback without others around	• No human guidance • No real-time follow up questions • Little control over the environment

How Many Testers?

- ***Five*** is the magic number



- Should represent your key user segments

Script

Getting started

- Welcome participants
- Thank participants for their time
- Get consent to record
- Learn the participant's basic information
- Remind participants they are not being tested
- Let participants ask questions

Usability tasks

- Based on research goals
- Specific
- Make participants take action
- Avoid providing clues on how to complete the task

Conclusions

- Ask clarifying questions
- End the recording
- Thank the participant

Tips for Writing Interview Questions

- Use the same set of questions for each interview
- Ask open-ended questions
- Encourage elaboration
- Ask the same question from different angles
- ***Don’t mention other users***
- Don’t ask leading questions

Example (DogWalker)

Introduction	• **Project background**: We're creating a new app to help people find and schedule dog walkers. We need to find out if the main user experience, finding and scheduling a dog walker, is easy for users to complete. We'd also like to understand the specific challenges that users might face in the searching, scheduling, and reservation processes. • **Research goals**: Determine if users can complete core tasks within the prototype of the dog walker app. Determine if the dog walker app is difficult to use.
Research questions	• How long does it take a user to find and book a dog walker in the app? • What can we learn from the user flow, or the steps that users take, to book a dog walker? • Are there parts of the user flow where users get stuck? • Are there more features that users would like to see included in the app? • Do users think the app is easy or difficult to use?
Key Performance Indicators (KPIs)	• Time on task. • Conversion rate. • System Usability Scale.
Methodology	• Unmoderated usability study • **Location**: United States, remote (each participant will complete the study in their own home) • **Date**: Sessions will take place on March 12 (normal business hours) and March 13 (after hours) • **Length**: Each session will last 5 to 10 minutes, based on a list of prompts • **Compensation**: $25 Target gift card for participating in the study
Participants	• Participants are all dog owners with full-time jobs and who go out for activities more than once a week. • Two males, two females, and one nonbinary individual, between the ages

- Unmoderated

	of 20 and 75. One participant is a person with a visual impairment. • The study is accessible for use with a screen reader and a switch device.

Script	**During the unmoderated usability study**
	A list of prompts appears on the device screen
	• **Prompt 1:** Pick a date and time to schedule a dog walker.
	  ○ **Prompt 1 follow-up:** How easy or difficult was this task to complete? Is there anything you would change about the process of scheduling a dog walker?
	• **Prompt 2:** Select a dog walker.
	• **Prompt 3:** Confirm booking of a dog walker and complete the checkout process.
	  ○ **Prompt 3 follow-up:** How easy or difficult was this task to complete? Is there anything you would change?
	• **Prompt 4:** From the home page, figure out where you would go to edit your address.
	• **Prompt 5:** How did you feel about this dog walking app overall? What did you like and dislike about it?
	
	After the unmoderated usability study
	Participants will complete the System Usability Scale
	• Participants will score the following ten statements by selecting one of five responses that range from “Strongly Disagree” to “Strongly Agree.”
	  ○ I think that I would use this app frequently.
	  ○ I find the app unnecessarily complex.
	  ○ I think the app is easy to use.
	  ○ I need the support of a technical person to be able to use this app.
	  ○ I find the app easy to navigate.
	  ○ There is inconsistency within the app.
	  ○ I imagine that most people would learn to use this app quickly.
	  ○ I feel confident using the app.
	  ○ I need to learn a lot of things before I can start using this app.
	  ○ The main user flow is clear.

Schedule	• Recruitment starts: March 1 • Study dates: March 12-13 • Results available: April 1

Example (CoffeeHouse)

Introduction	• **Date**: 12/14/2020 • **Project background**: We're creating a CoffeeHouse app to help people place and pick up multiple CoffeeHouse orders together at once, so they can skip in-store lines and the payment process is streamlined. Some patrons place orders for groups and ordering individually takes too long. • **Research goals**: Figure out if collaborative ordering in the app actually saves people time when placing group orders.
Research questions	• How long does it take for 4-5 people to make a collaborative group order? • What can we learn from the steps users take to order as a group, and on their own?
Key Performance Indicators (KPIs)	• Time on task • User error rates • Conversion rates
Methodology	• Unmoderated usability study • Location: United States, remote (participants will go through the usability study in their own homes). • Date: Sessions will take place on February 8 & 9 • Five participants complete the collaborative ordering tasks on their own. One of the participants is randomly chosen to submit the group order. Each participant completes a questionnaire on their experience privately. • Each session will last 45 minutes, and will include an introduction, a list of tasks, and a short questionnaire.

- Moderated

Example (CoffeeHouse)

Participants	• Participants are people who place group coffee orders at least twice a month, whether it's a business task or a social task. This could be for office meetings, friend groups, or family.
	• They don't have to be coffee drinkers themselves • 2 Male, 2 Female, 1 Nonbinary, all aged 20-75 years old ○ 1 user of assistive technologies (keyboard, screen reader) • Incentive: $10 CoffeeHouse gift card redeemable at any location or online

	• **Intro:**
	  ○ Before we begin, do I have your consent to take both audio and video recordings of this interview?
	  ○ I want you to know that this isn't a test. There is no "right" answer, and none of your responses will be considered wrong.
	  ○ If you have any questions, please don't hesitate to ask.
	  ○ This data is being collected to help create an app that makes ordering coffee easier. Your answers will help us make the app easier for people to use.
	  ○ Basic questions:
	  ■ Do you live in an area with lots of coffee shops?
	  ■ Do you have a favorite coffee shop?
	  ■ How many times a week do you order coffee from a store?
	  ■ Do you usually order for yourself, or for a group?
	  ■ Can you talk me through a normal day in your life?
	  ○ Great! If you're ready, let's move onto the tasks you'll be working on.

Example (CoffeeHouse)

Script

- **Prompt 1:** Open up the CoffeeHouse app on your phone and customize a drink order for yourself. Do your best to talk me through your thought process.
  - **Prompt 1 Follow-Up:** How easy do you feel it is to customize a drink the way you like it? What was easy and what was challenging?
- **Prompt 2:** If I said, "start a new group order," would you know what to do?
  - **Prompt 2 Follow-Up:** Try it out now, please.
  - **Prompt 2 Follow-Up:** Did you find anything confusing?
- **Prompt 3:** From the existing group order screen, add your custom drink from a moment ago, then add multiple other custom drinks to the same order and proceed to the checkout screen.
  - **Prompt 3 Follow-Up:** How do you feel about the process of purchasing multiple drinks in the same order? What was easy and what was challenging?
- **Prompt 4:** Finally, checkout and complete the group order.
  - **Prompt 4 Follow-Up:** How do you feel about paying for different orders in the same transaction? What are your feelings about the amount of time it took to complete?
- **Prompt 5:** How did you feel about the CoffeeHouse app overall? What did you like and dislike about it?

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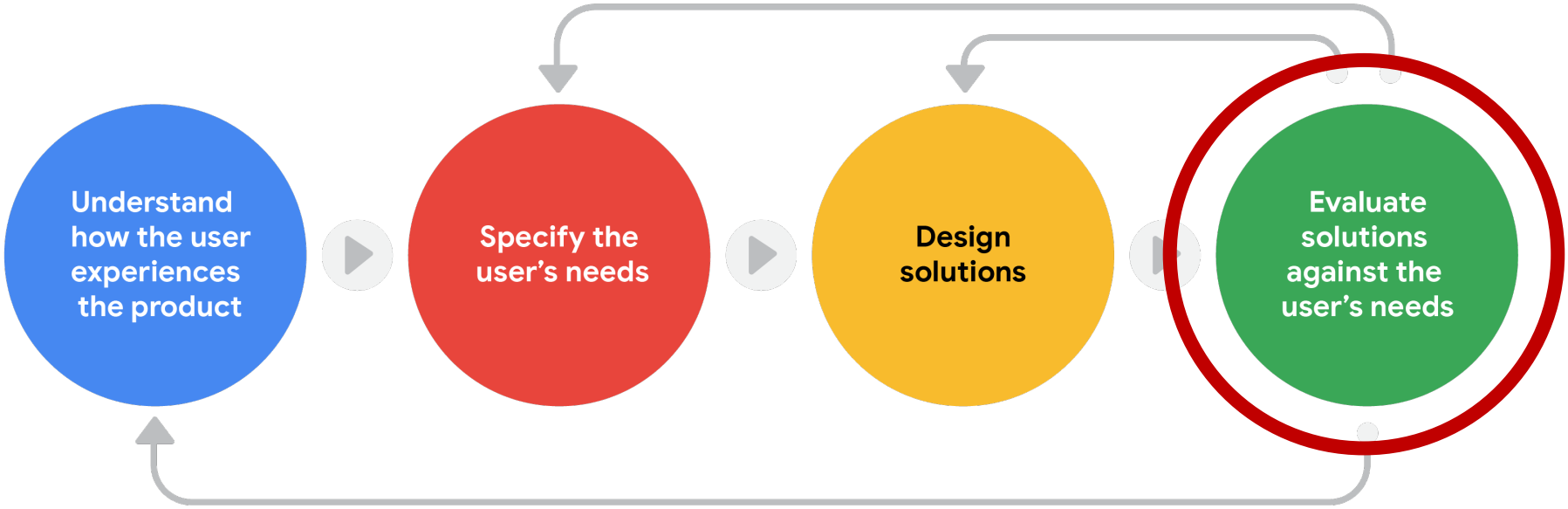
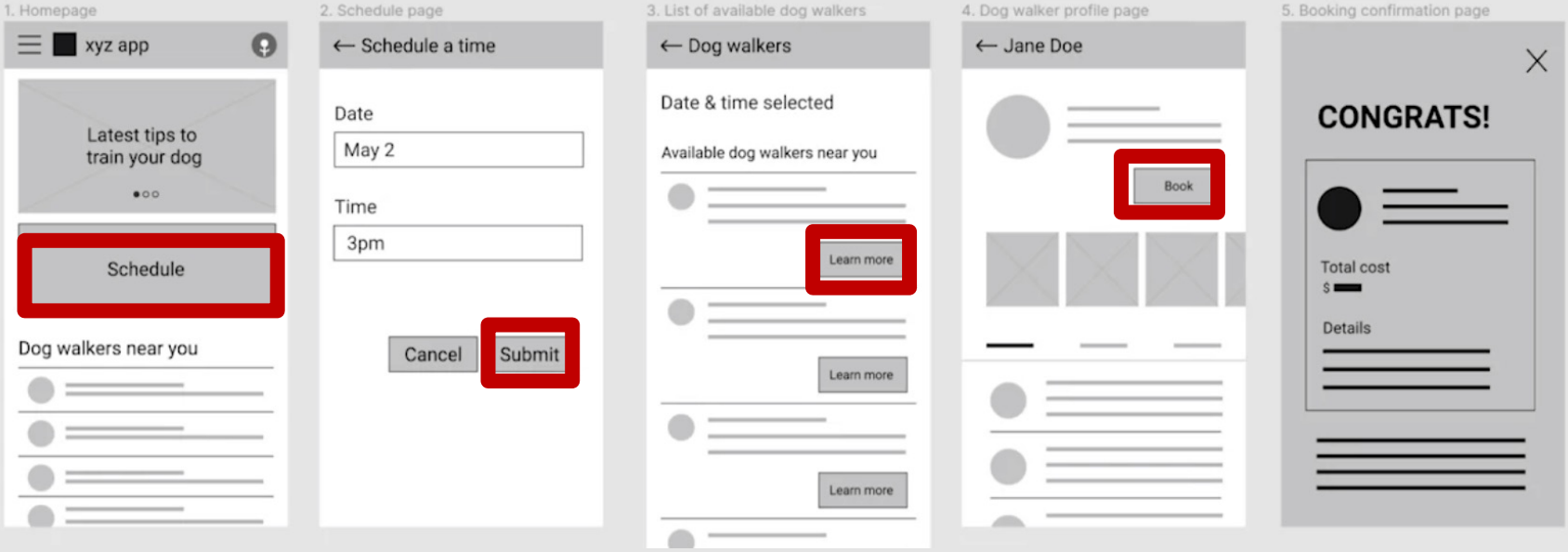


Get Your Prototype & Prompts Ready

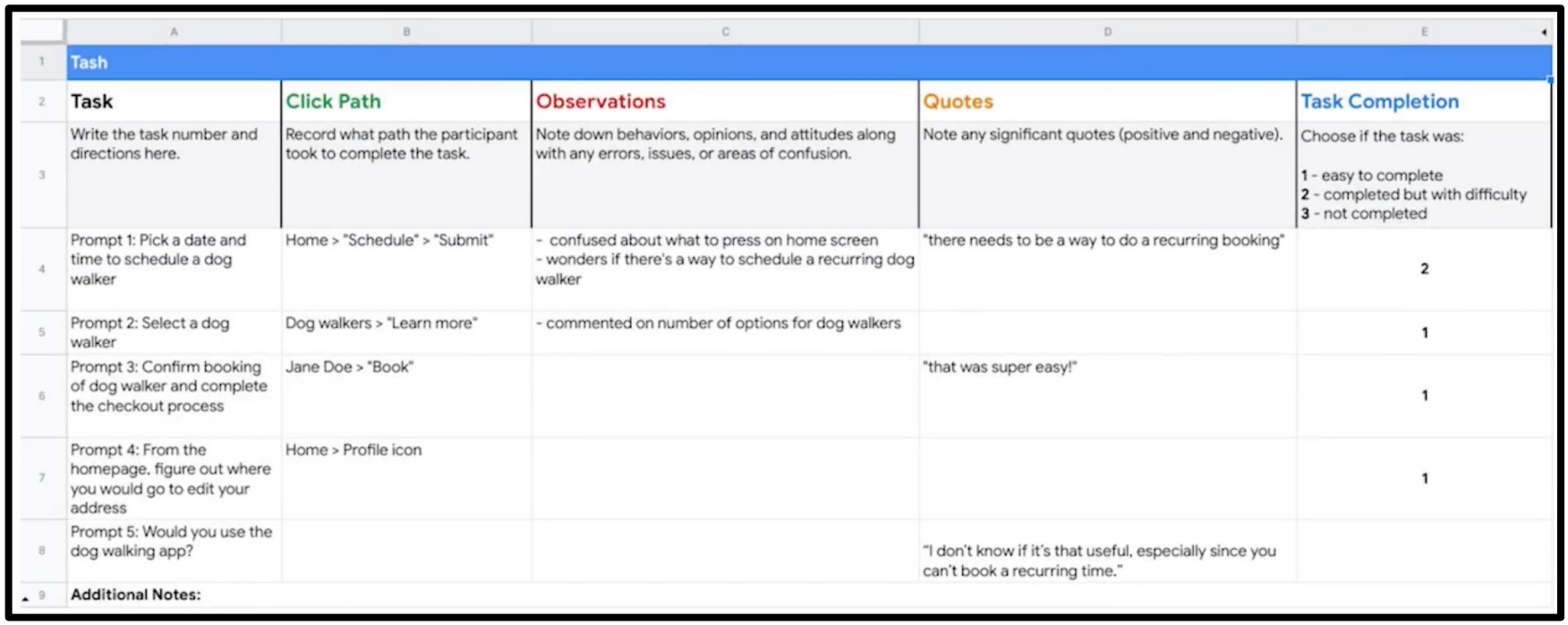
- Prompt 1: “Pick a date & time to schedule a dog walker.”



Unmoderated Usability Study

- Ask each tester to ***speak her mind out loud*** when testing your prototype
- Record everything:
  - Tester 1
  - Tester 2
  - Tester 3
  - Tester 4
  - Tester 5

Taking Notes



	A	B	C	D	E
1	Tash				
2	Task	Click Path	Observations	Quotes	Task Completion
3	Write the task number and directions here.	Record what path the participant took to complete the task.	Note down behaviors, opinions, and attitudes along with any errors, issues, or areas of confusion.	Note any significant quotes (positive and negative).	Choose if the task was: **1** - easy to complete **2** - completed but with difficulty **3** - not completed
4	Prompt 1: Pick a date and time to schedule a dog walker	Home > "Schedule" > "Submit"	- confused about what to press on home screen - wonders if there's a way to schedule a recurring dog walker	"there needs to be a way to do a recurring booking"	**2**
5	Prompt 2: Select a dog walker	Dog walkers > "Learn more"	- commented on number of options for dog walkers		**1**
6	Prompt 3: Confirm booking of dog walker and complete the checkout process	Jane Doe > "Book"		"that was super easy!"	**1**
7	Prompt 4: From the homepage, figure out where you would go to edit your address	Home > Profile icon			**1**
8	Prompt 5: Would you use the dog walking app?			"I don't know if it's that useful, especially since you can't book a recurring time."	
9	**Additional Notes:**				

- For each tester, done by each member

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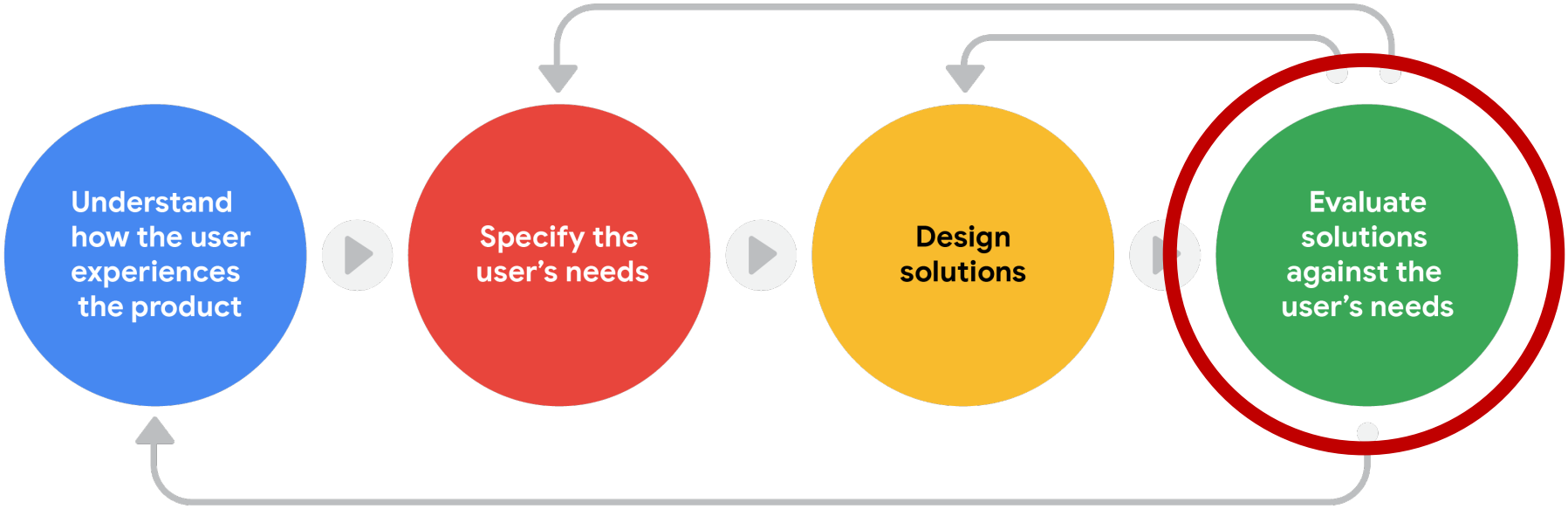
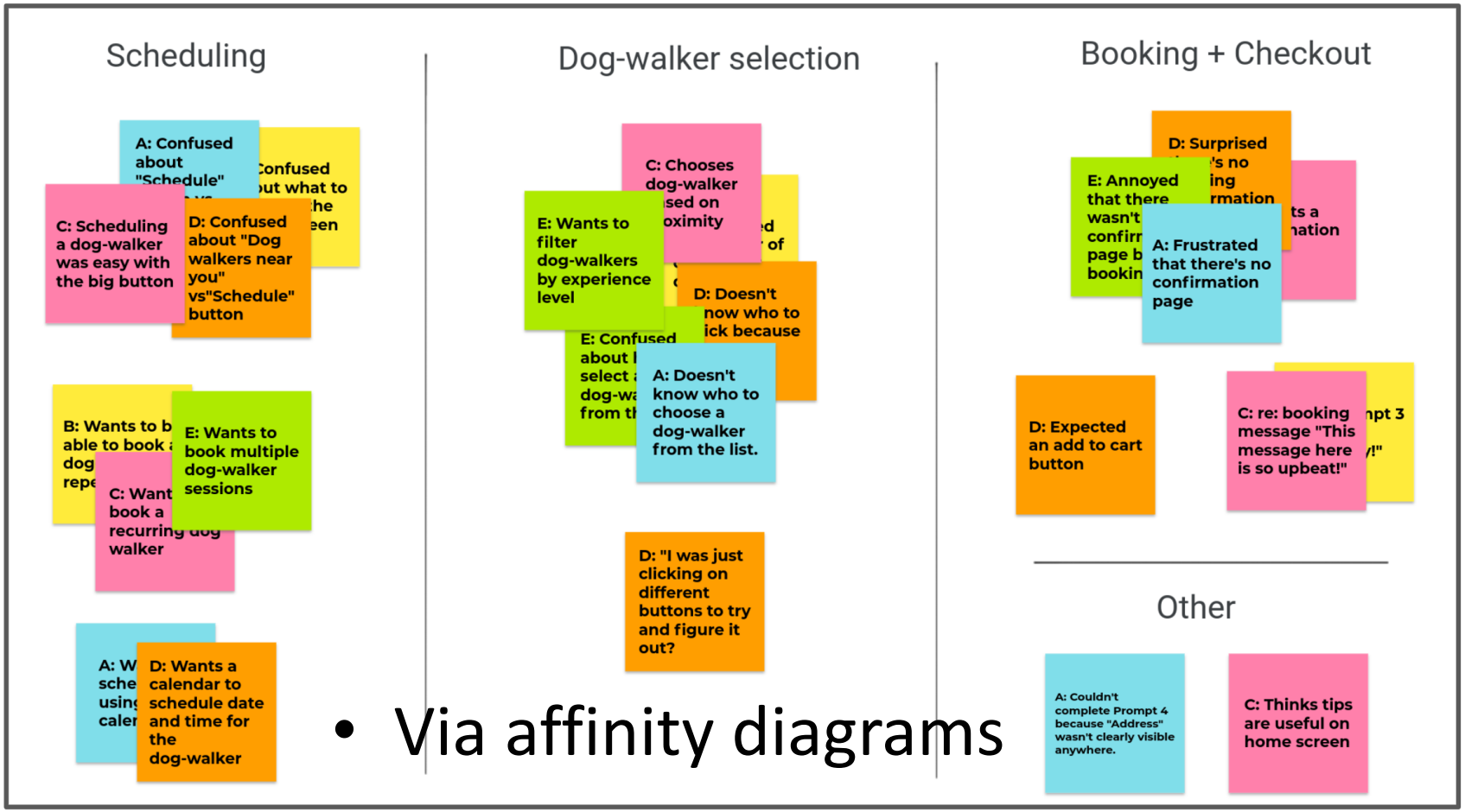


Insights

- Observations about people that help you understand the ***user*** or ***their needs*** from new perspectives

From Notes to Insights



- Via affinity diagrams

Example (DogWalker)

- 4/ 5 participants wanted to be able to make a reoccurring appointment with a dog walker
- 3/ 5 users would like to pick a date when scheduling a dog walker
- 3/5 testers were surprised that there wasn't a confirmation page before they were charged

Qualities of Strong Insights

- Grounded in real data
- Answer your research questions
- Easy to understand
- Increase empathy for the user experience
- Inspire direct action

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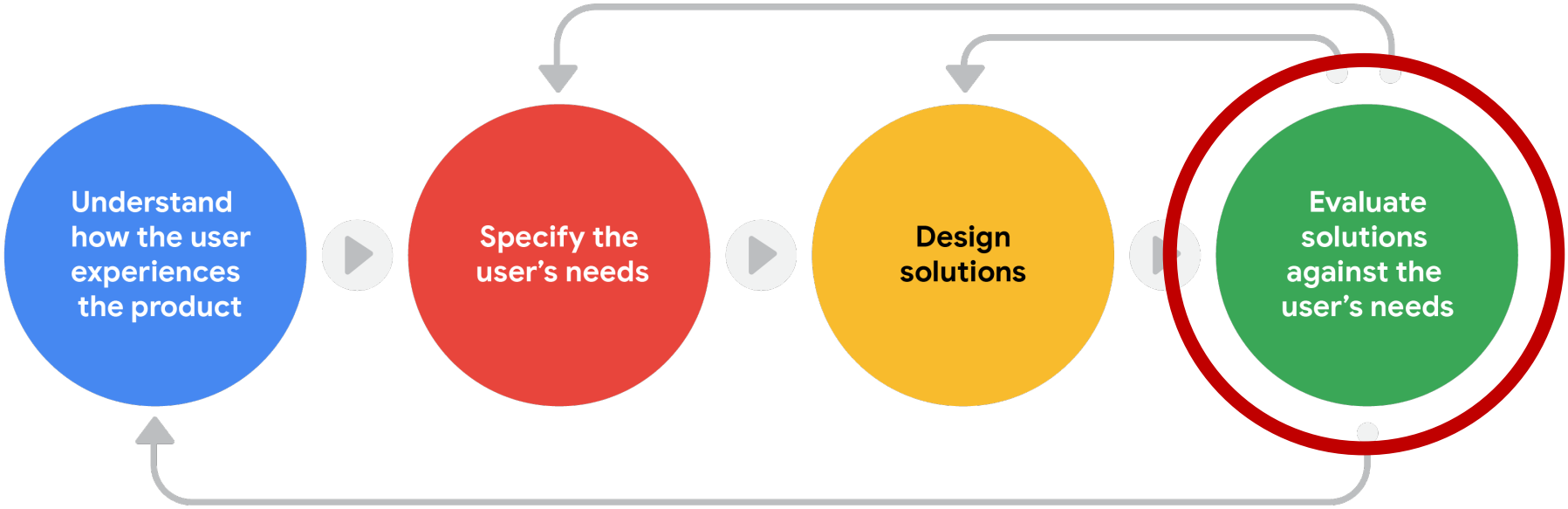
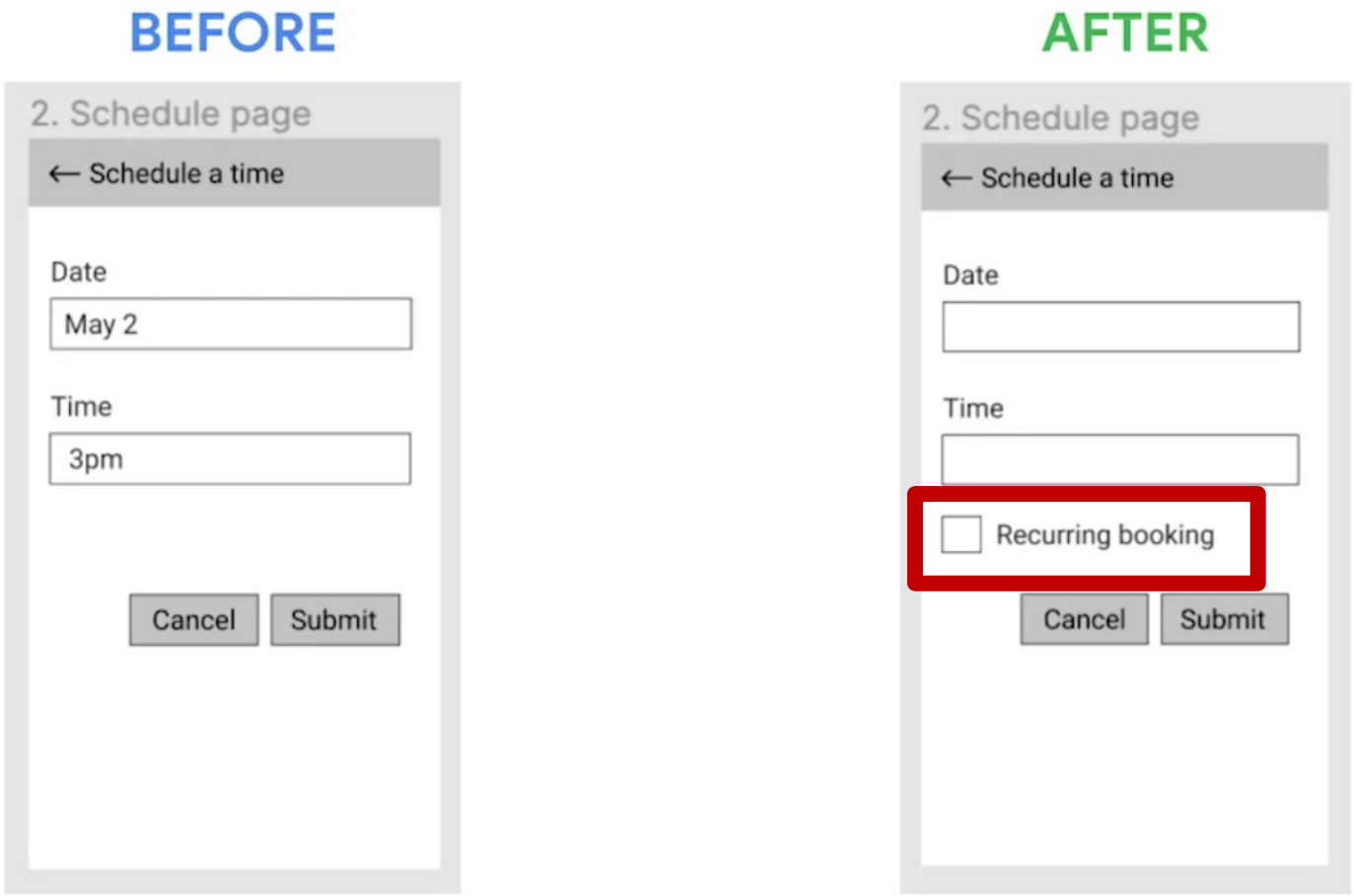


Prioritizing Insights

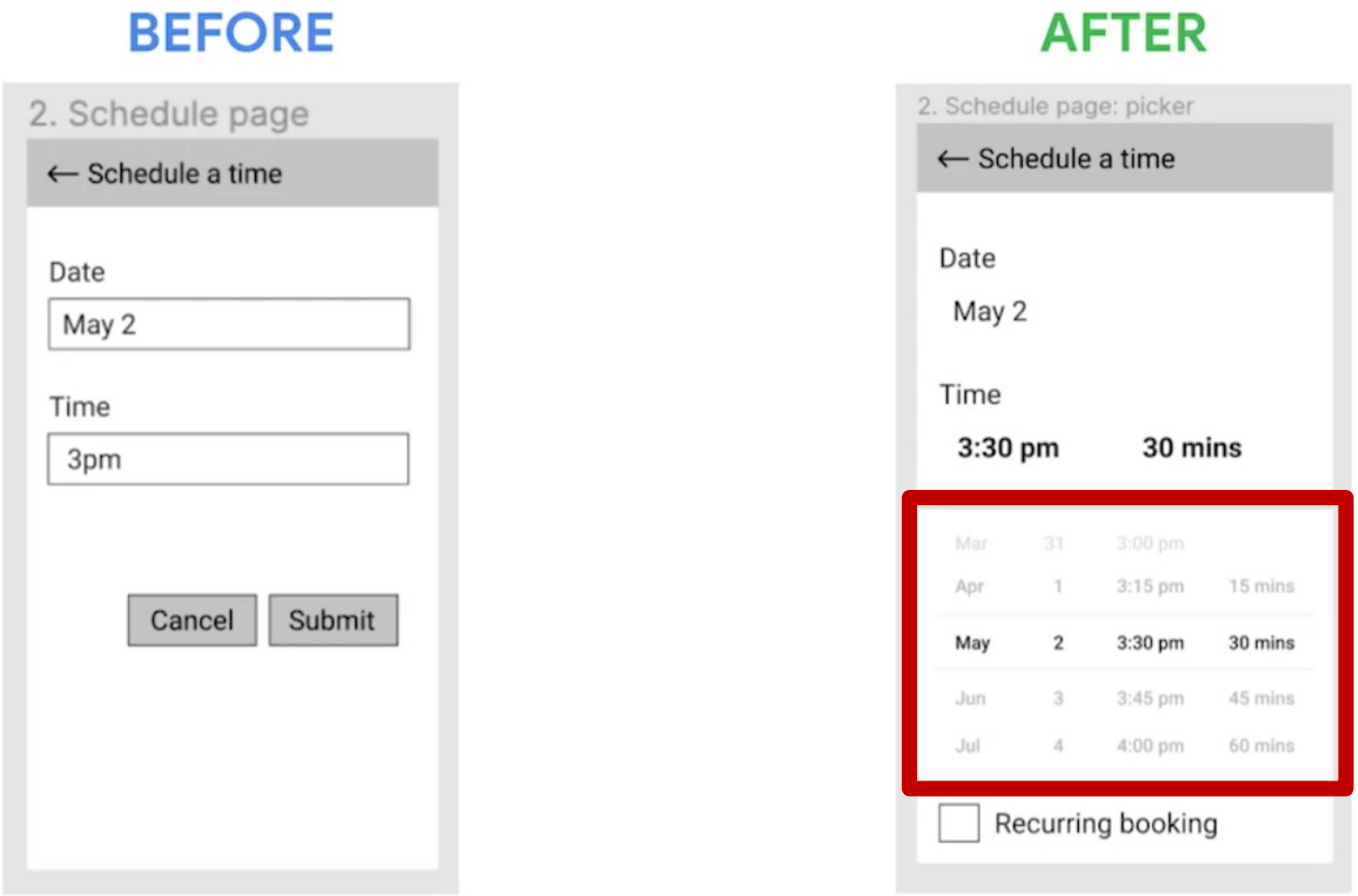
- P0: must be fixed so users can complete the main flow
  - Confirmation page before charge
- P1: should be included in future version
  - Reoccurring appointments
- P2 …
  - Date picker for scheduling a dog walker

Confirmation Page before Charge

Reoccurring Appointments



Date Picker


BEFORE
2. Schedule page
← Schedule a time
Date
May 2
Time
3pm
Cancel
Submit
AFTER
2. Schedule page: picker
← Schedule a time
Date
May 2
Time
3:30 pm
30 mins
Mar 31 3:00 pm
Apr 1 3:15 pm 15 mins
May 2 3:30 pm 30 mins
Jun 3 3:45 pm 45 mins
Jul 4 4:00 pm 60 mins
Recurring booking

It’s your turn!

Demo 2

- Goal statements & competitors 20%
  - Unique value propositions
  - KPIs
- Storyboards & low-fi prototype 15%
  - Main user flow (happy path)
- Unmoderated usability study 20%
  - Research questions, prompts
  - P0 & P1 insights with data support
- Improvements 15%

Report (20%)

- Empathy maps, user journey map
- Problem statements & HMWs (photos) 10%
- Ideation process & Crazy 8s (photos) 10%
- Competitive audit (spreadsheet)
- Prototype details
  - More flows, edge cases, etc.
- More insights (>P1) and data
- More improvements

- ***Up to 20% bonus!***

Peer Review (10%)

- Each team is rated by a tester 5%
  - Did the team give enough background or context?
  - Were the prompts clear enough?
  - ***Not*** based on the design of the prototype
- Each tester is rated by a team 5%
  - Did the mind spoken out loudly?
  - Was the feedback specific enough?
  - ***Not*** based on the number of insights