CS 147

Autumn 2025

Sketching, Low-fi Prototyping & Pilot Usability Testing

Presented by
Jasleen Sihota

Simmr.

Simmr.

VALUE PROPOSITION

"The voice that turns every
recipe into a story."

The Problem

- Cooking feels repetitive and isolating.
- Most recipe apps focus on **efficiency, not enjoyment.**
- Home cooks struggle to stay engaged or make cooking feel social and creative.

Our Solution

- **Simmr** turns cooking into a story.
- Voice-guided, story-driven recipes blend narration, music, and mini lessons.
- Transforms routine cooking into an **interactive, social**, and **fun experience**.

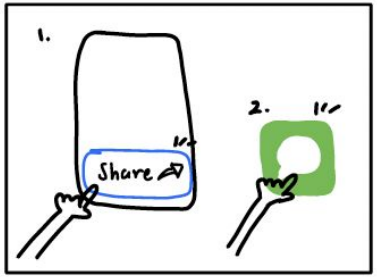
Simmr.

AGENDA

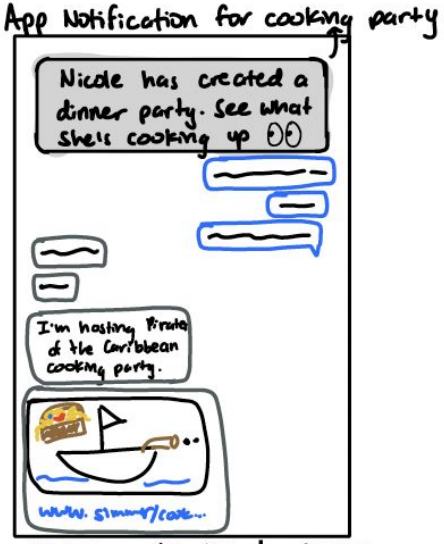
- Exploring Different Designs
- Selected Interface Design + Rationale
- Low-Fidelity Prototype + Testing Methodology
- Results & Discussion

Concept Sketches

Concept 1: Mobile App

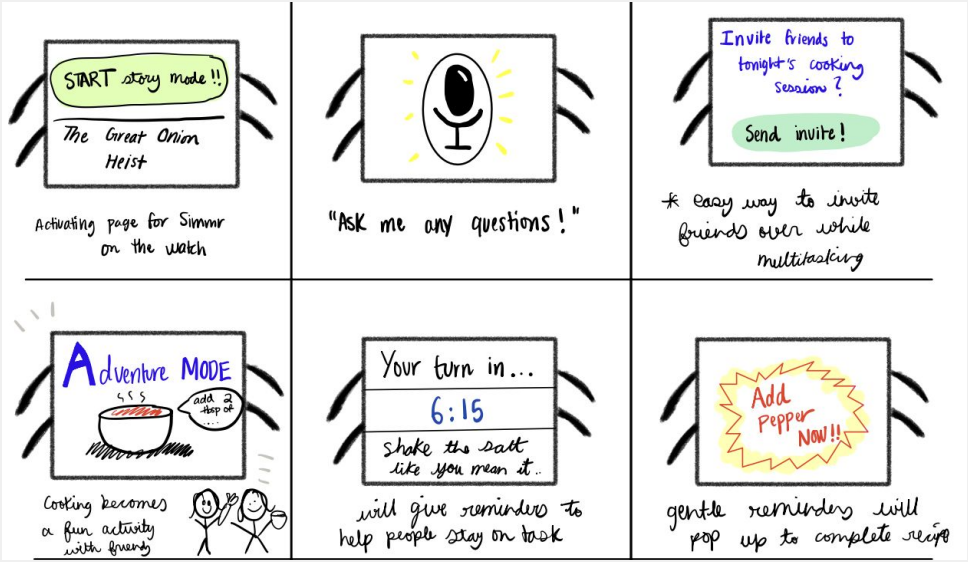


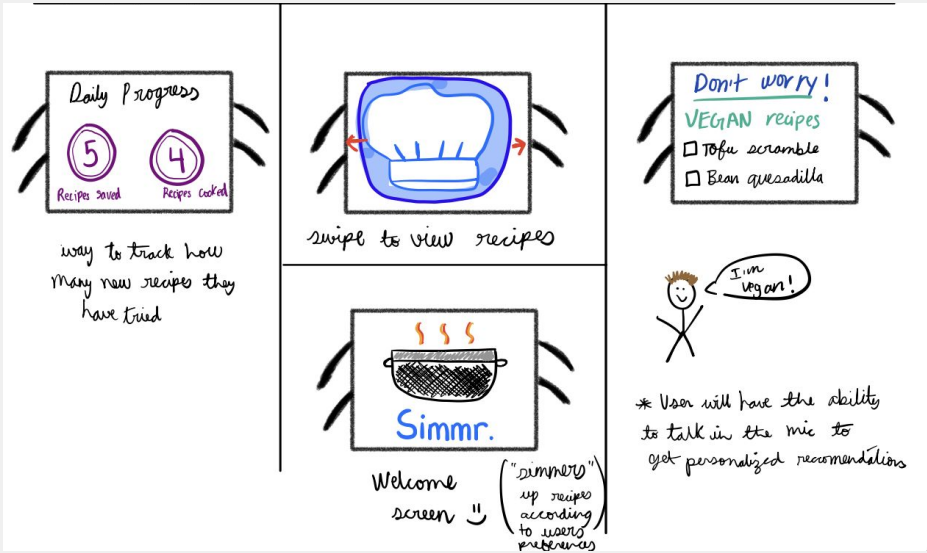
User sharing the cooking party through text messages



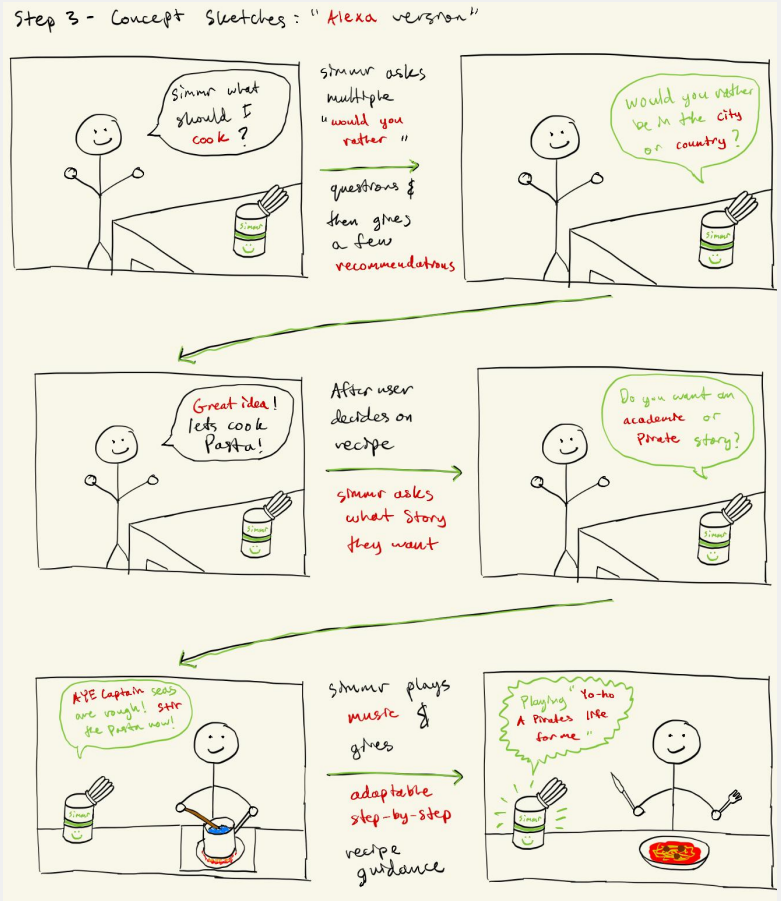
Message with link to dinner party.

Concept 2: Digital Wearable

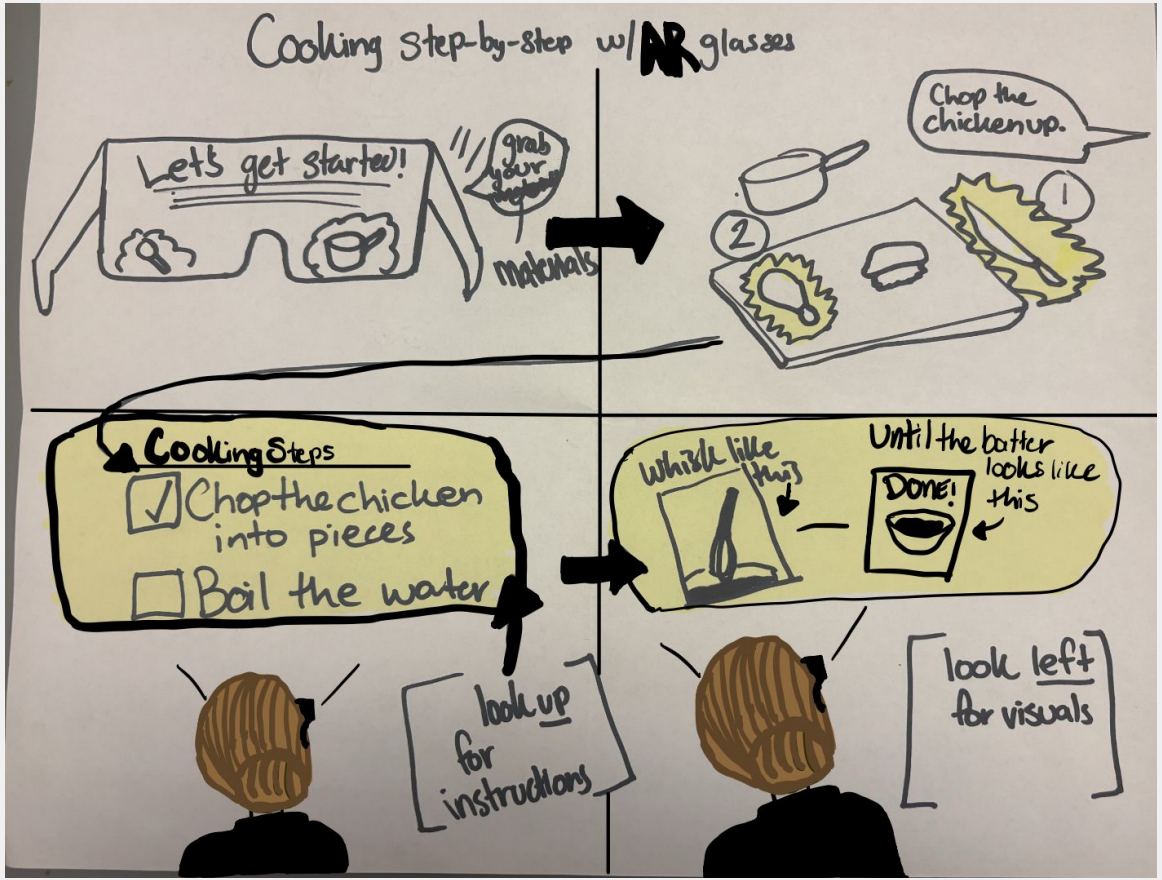




Concept 3: Amazon Alexa

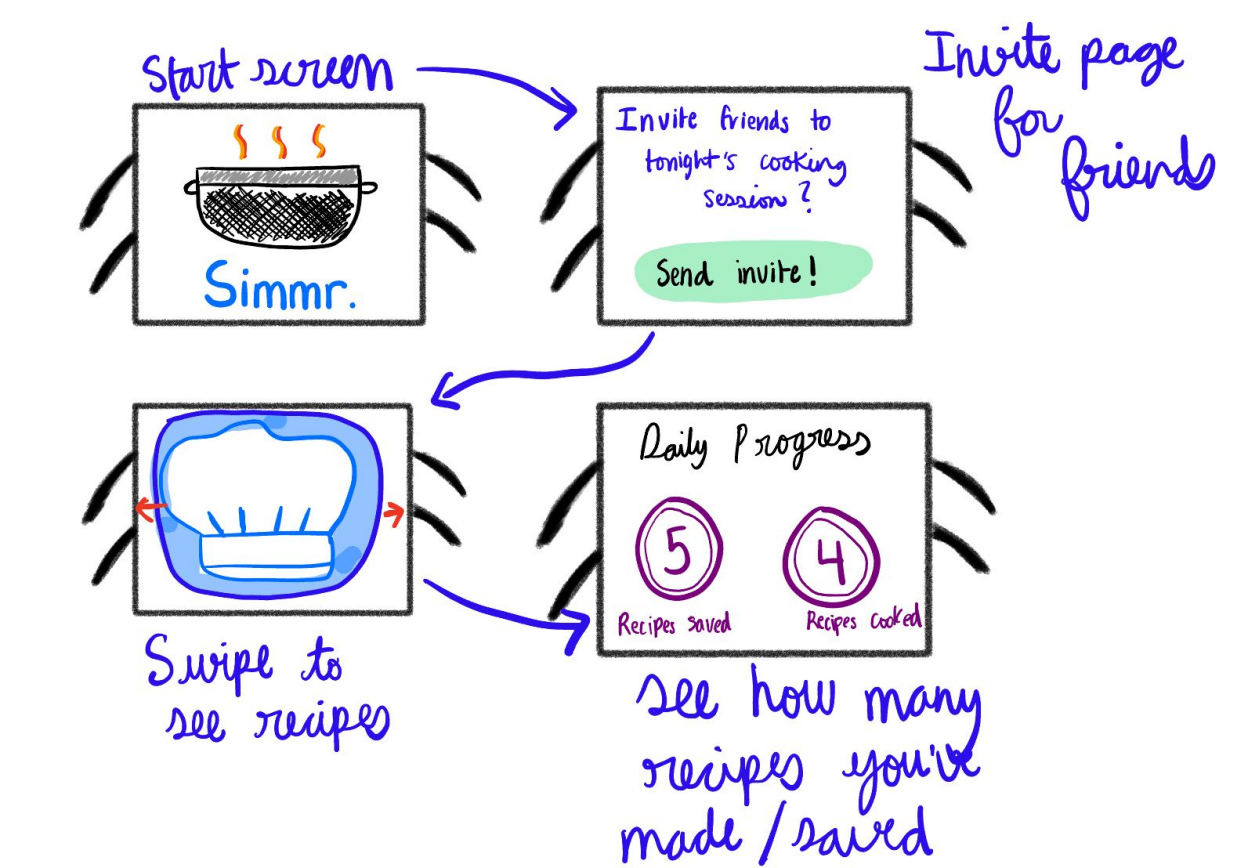


Concept 4: Augmented Reality



Top 2 Diverse Realizations

Digital Wearable Walkthrough



Digital Wearable Walkthrough

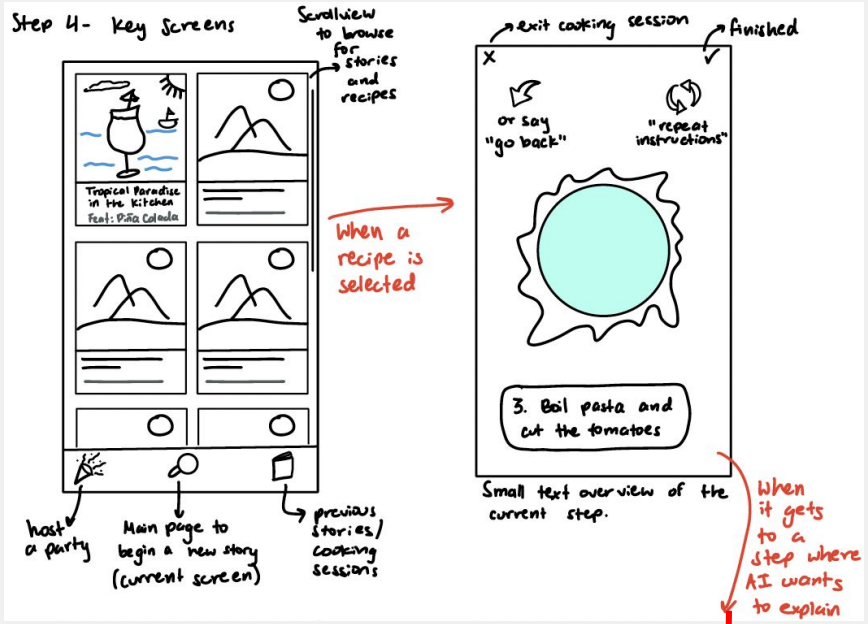
PROS

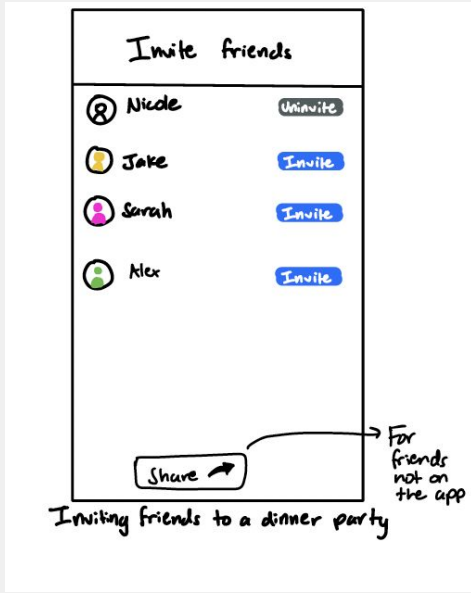
1. Hands-free recipe navigation and prompts when cooking.
2. Quick, contextual cues (timers, fun facts, haptics).
3. Enables multitasking and keeps hands clean.

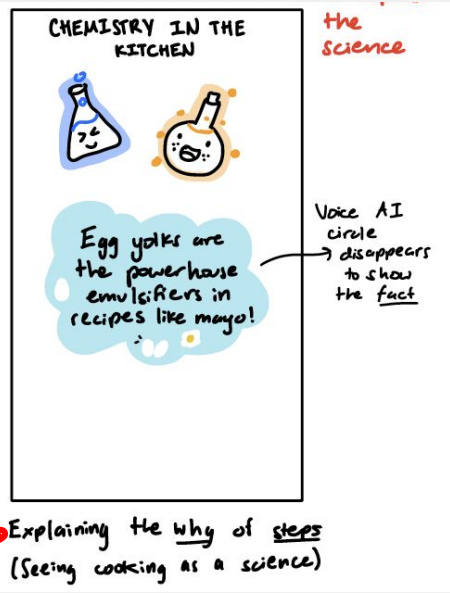
CONS

1. Small screens limit interaction and usability.
2. Few target users own wearables.
3. Adds privacy and data concerns.

Mobile App Walkthrough







Mobile App Walkthrough

PROS

1. Accessible and familiar to all users.
2. Voice guidance fits multitasking and keeps hands free.
3. Larger screen supports rich storytelling (animations, music)
4. Easy to update, test, and expand across devices.

CONS

1. Hard to visualize multiple steps or ingredients at once.
2. Background kitchen noise may interfere with instructions.
3. May become distracting if narration or pacing is poorly timed.
4. Long cooking sessions could reduce novelty or engagement.

Selected Interface

Mobile App

While the Apple Watch version is innovative, it depends on **expensive hardware** that not everyone owns, creating **accessibility and equity issues**.

A **native mobile app** is **portable and familiar**, allowing users to cook, learn, and interact through **voice and storytelling** without needing new devices.

This approach focuses on **experience-first design**, emphasizing how users **feel and engage** rather than on technological novelty.

Rationale

1.5B smartphones exist worldwide **compared** to only **.2B smartwatches**, limiting accessibility if we went with the latter option.

Smartwatches also constrain storytelling, visuals, and interaction given their small screens.

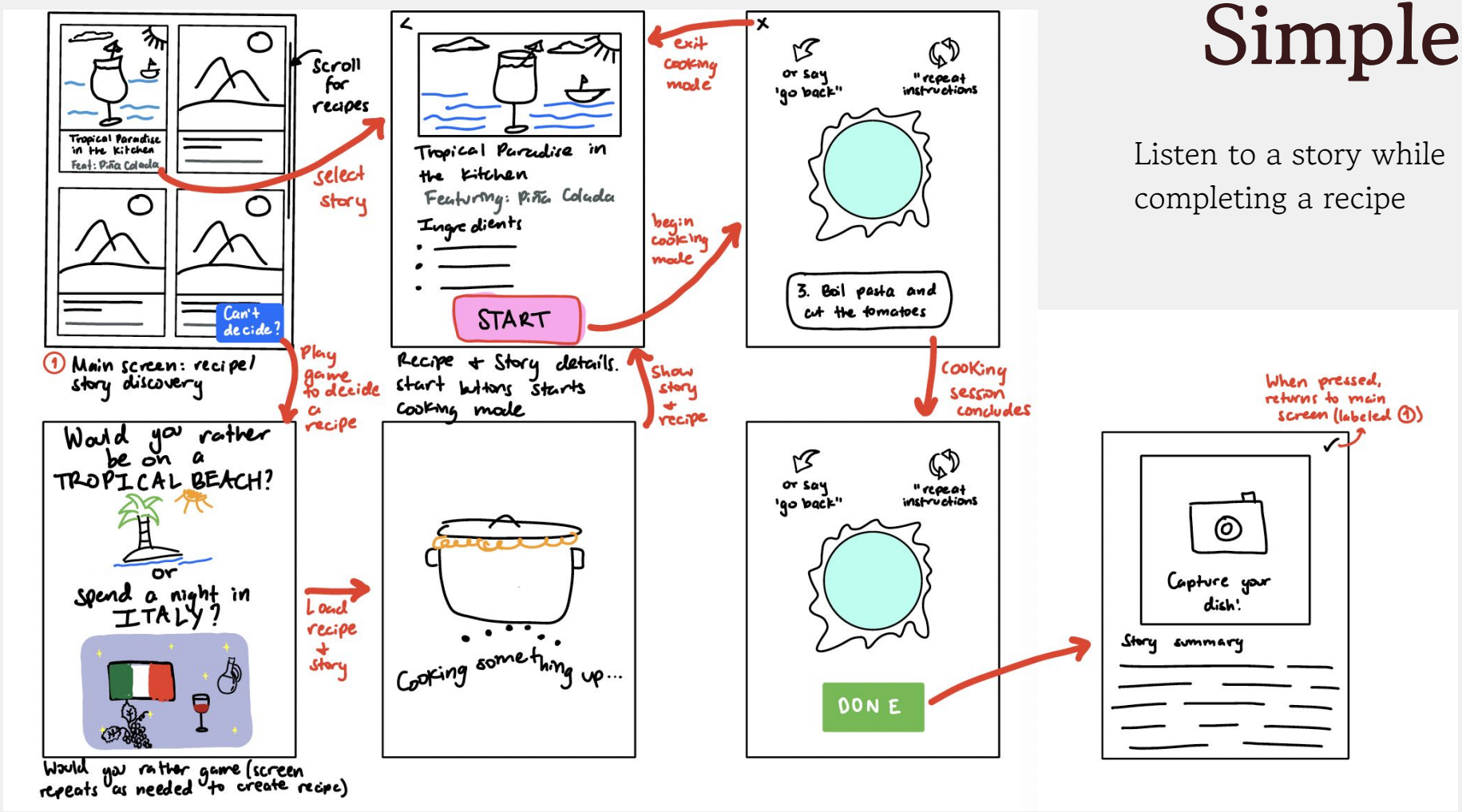
A mobile app **scales easily, works hands-free, and fits naturally** into everyday cooking. Unlike a wearable that moves with the user, it requires brief returns to the phone for visual cues. Still, it **prioritizes experience and inclusivity** over exclusivity or costly hardware.

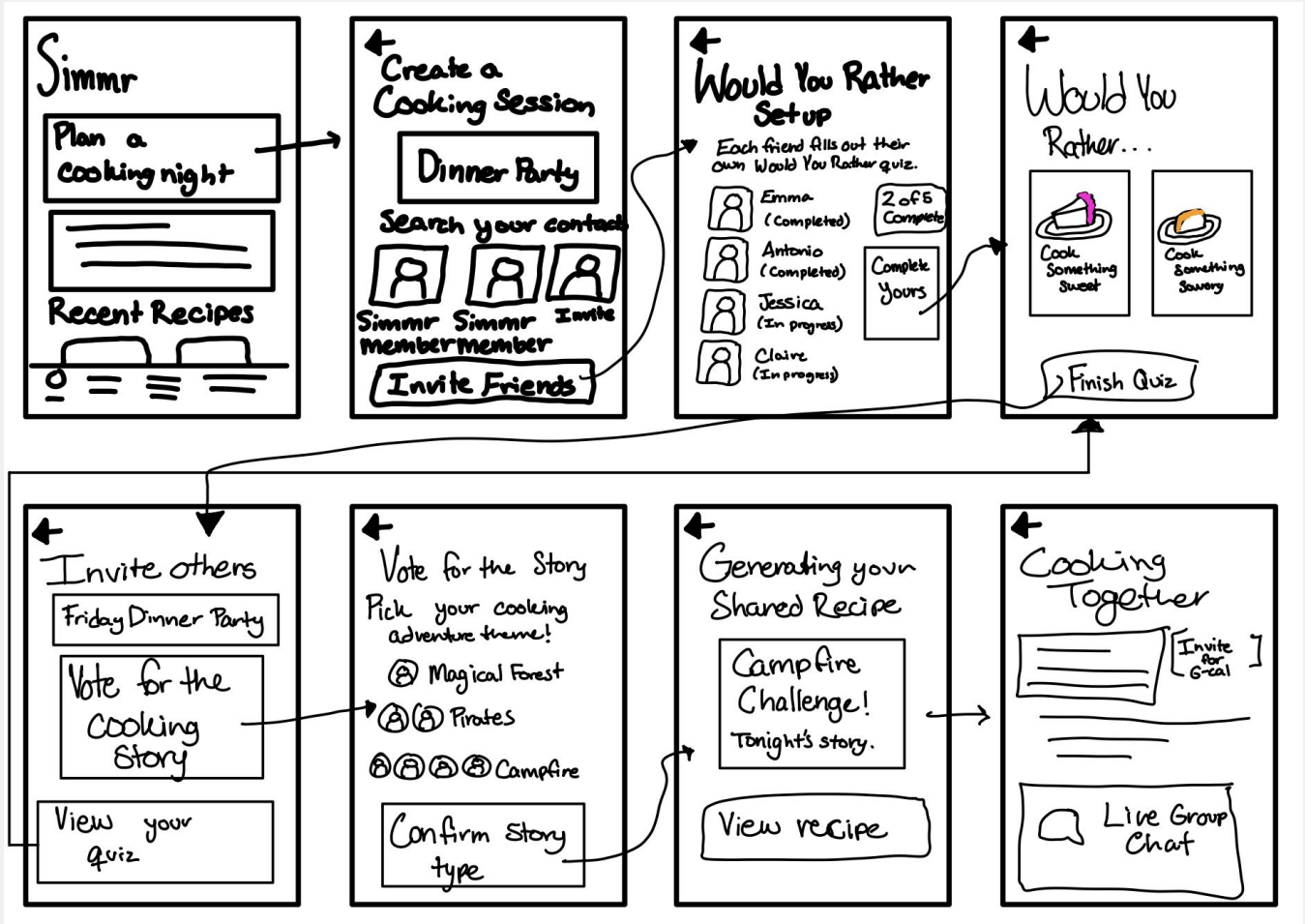
Simmr is designed for inclusion, not limitation.The mobile app lets anyone cook, listen, and learn — no extra hardware required.

Storyboards

Simple

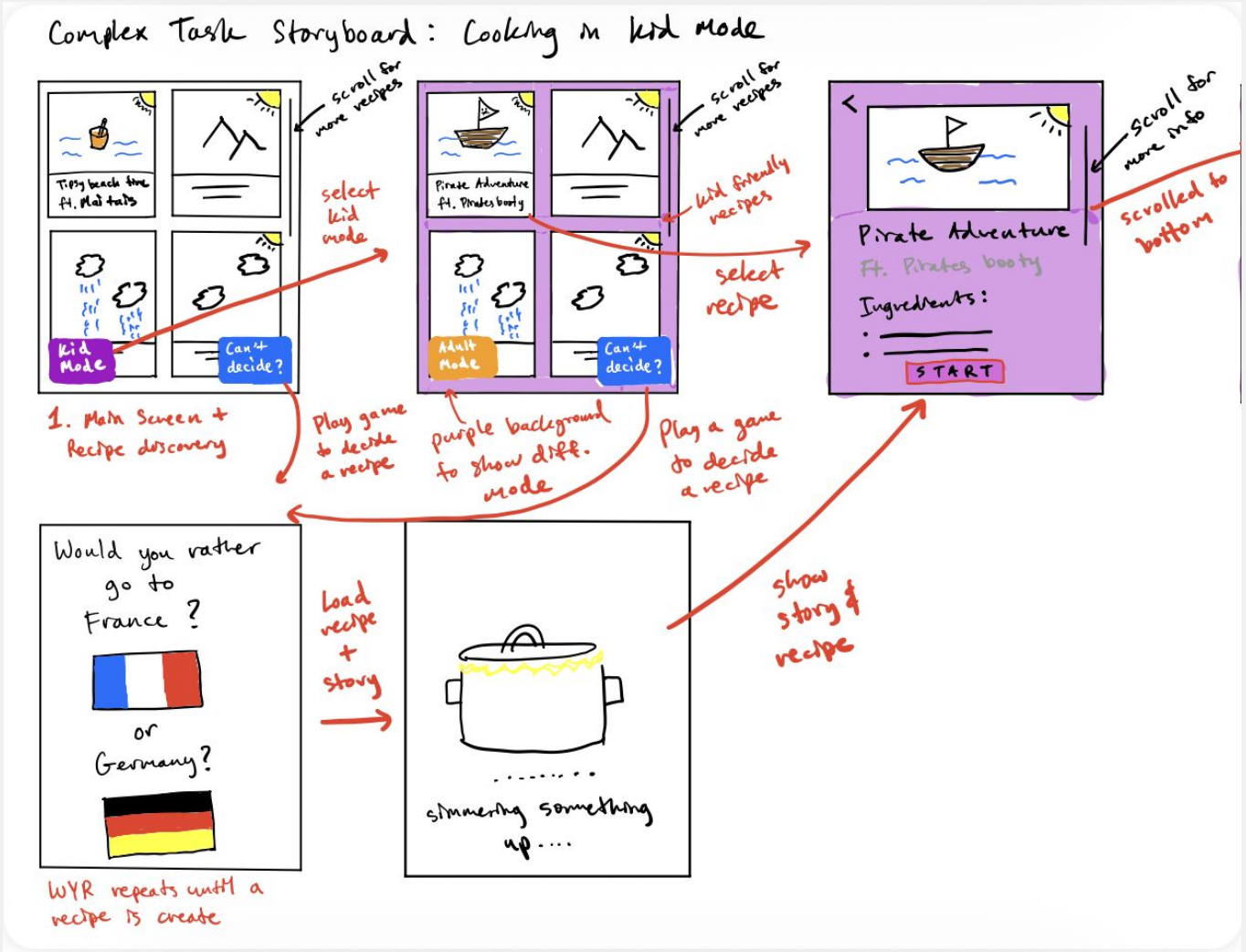
Listen to a story while completing a recipe





Moderate

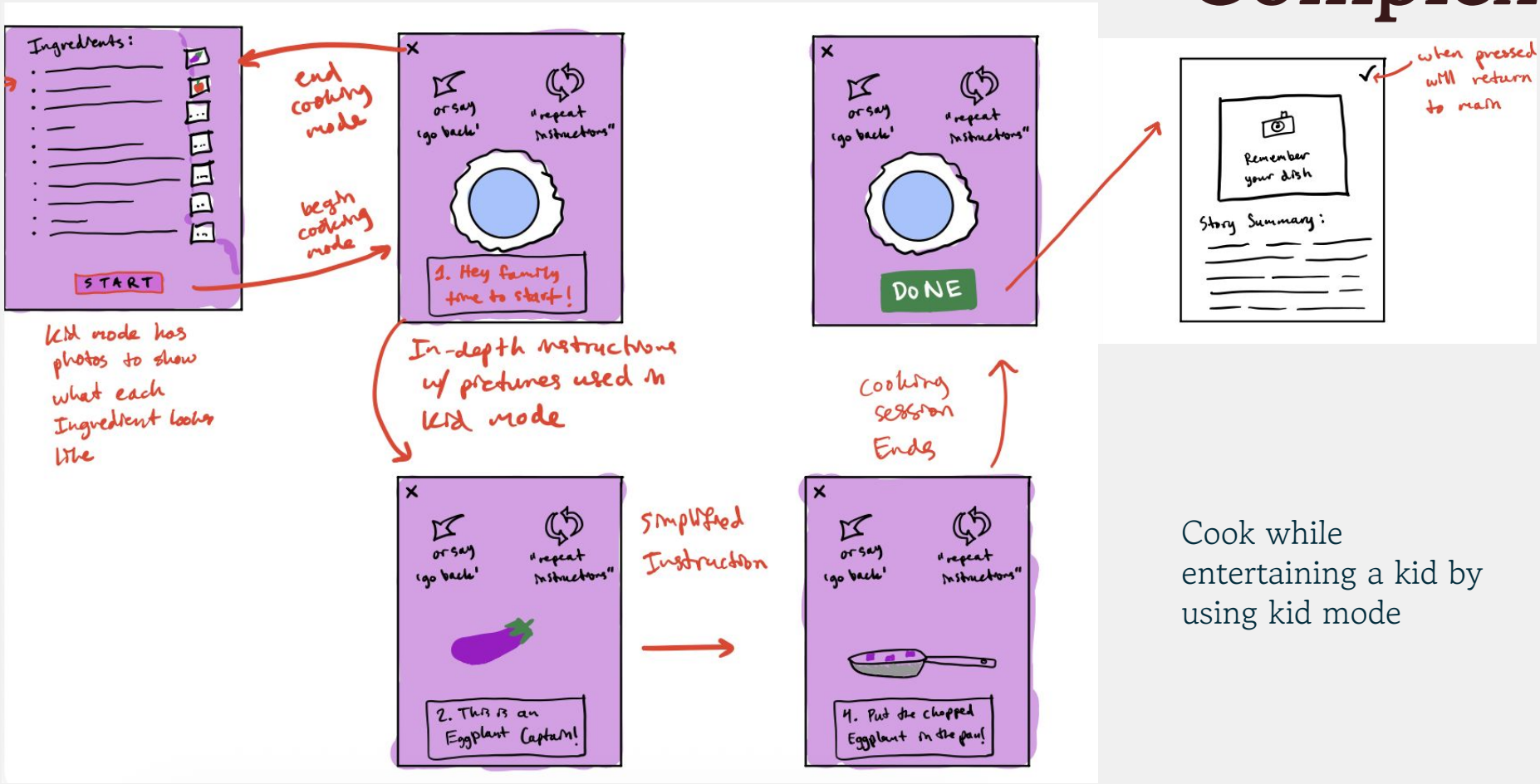
Create a dinner party with your friends



Complex

Cook while entertaining a kid by using kid mode

Complex



Cook while entertaining a kid by using kid mode

Low-Fidelity Prototype

Prototype Construction

How it was built

- Created paper prototypes for simple, moderate, and complex flows
- Each member owned a task flow, with one refining transitions
- Tested on peers to simulate real user sessions

Operation & Features

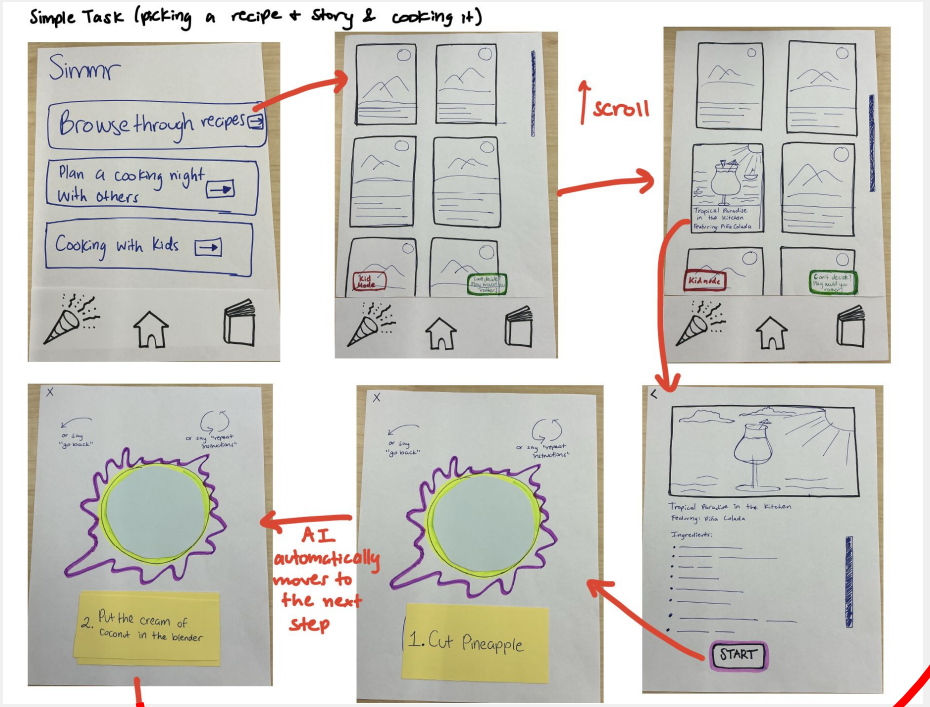
- Hand-drawn screens with cut-outs for buttons and prompts
- One member acted as the “computer,” swapping screens
- Moderate flow added transitions for inviting and syncing friends

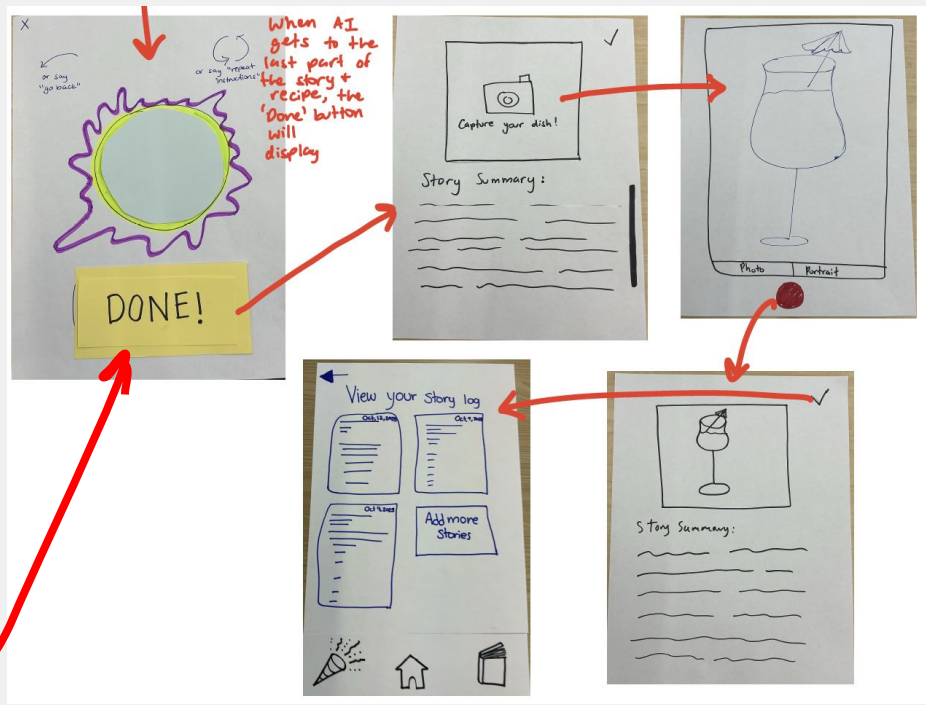
Design Decisions

- Focused on low cognitive load and clear labeling
- Added extra screens for friend invites
- Used a tactile setup for fast iteration and feedback

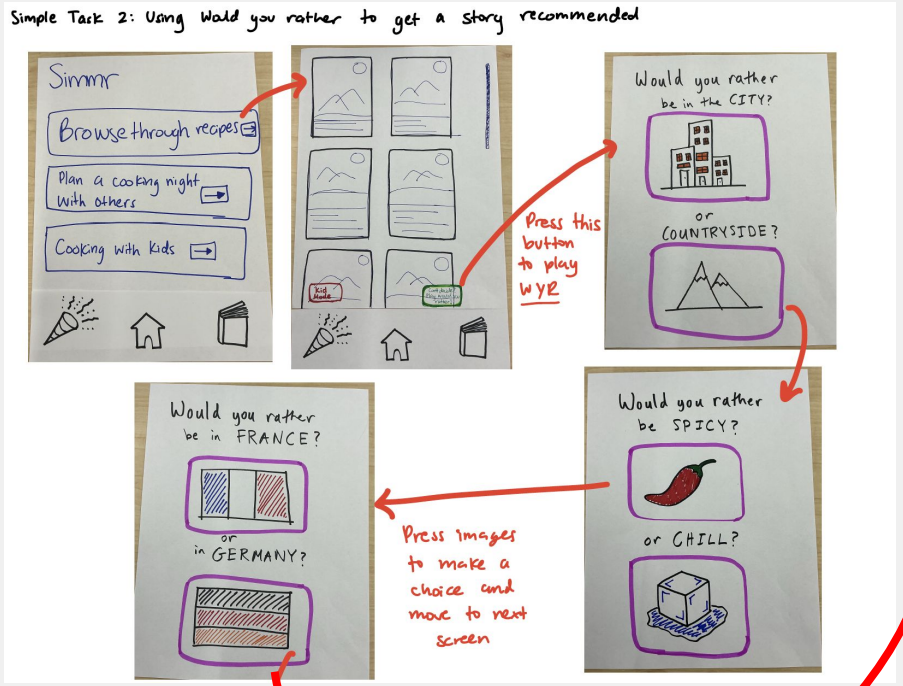
Tools: Paper, pens, markers, scissors

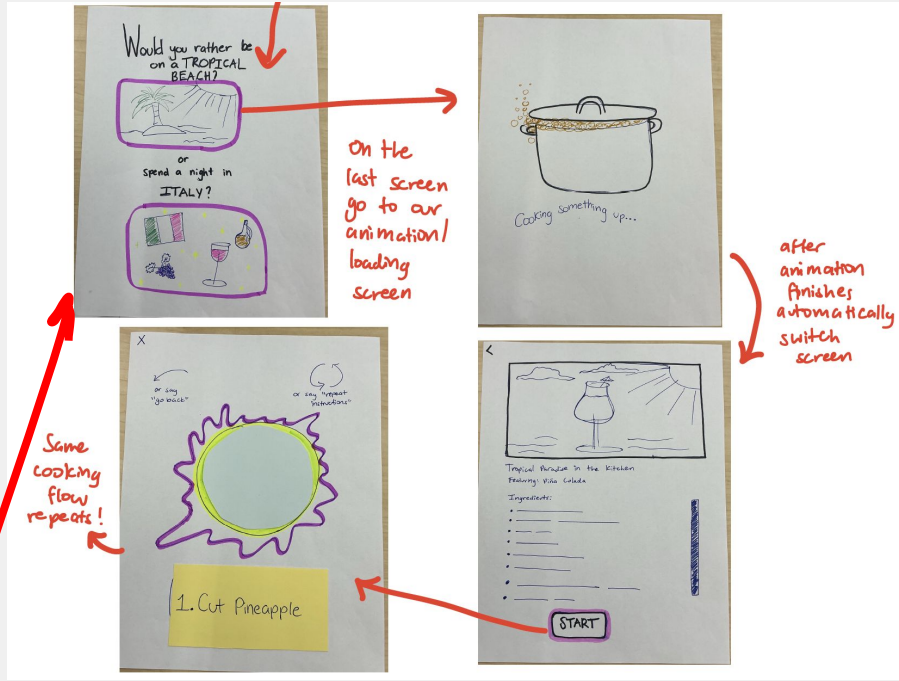
Simple: Listening to a story while completing a recipe



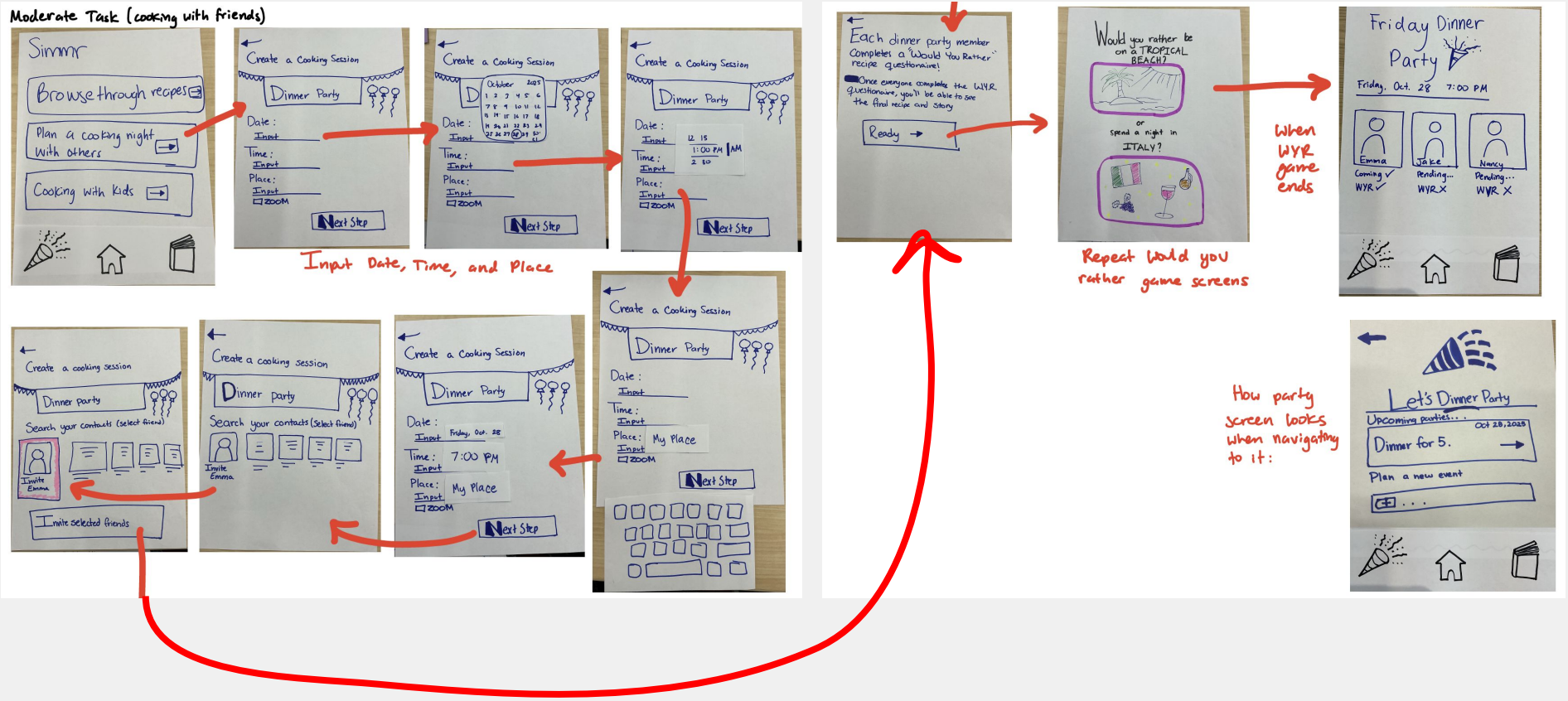


Simple: Would You Rather Game

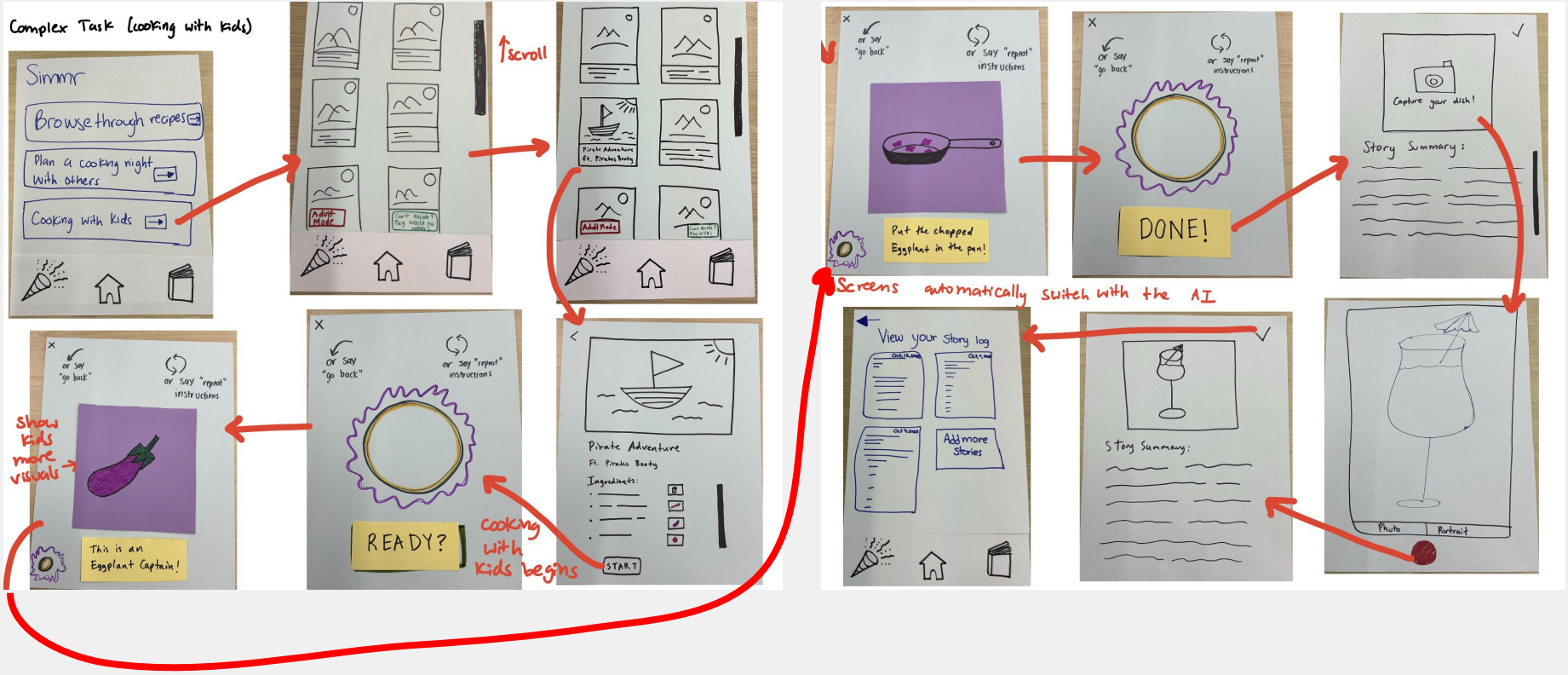




Moderate: Cooking with Friends



Complex: Cooking with Kids



Simmr's Testing Methodology

Participants

Martin
Data-Scientist & Dad
Met @ Tressider
Compensation: N/A

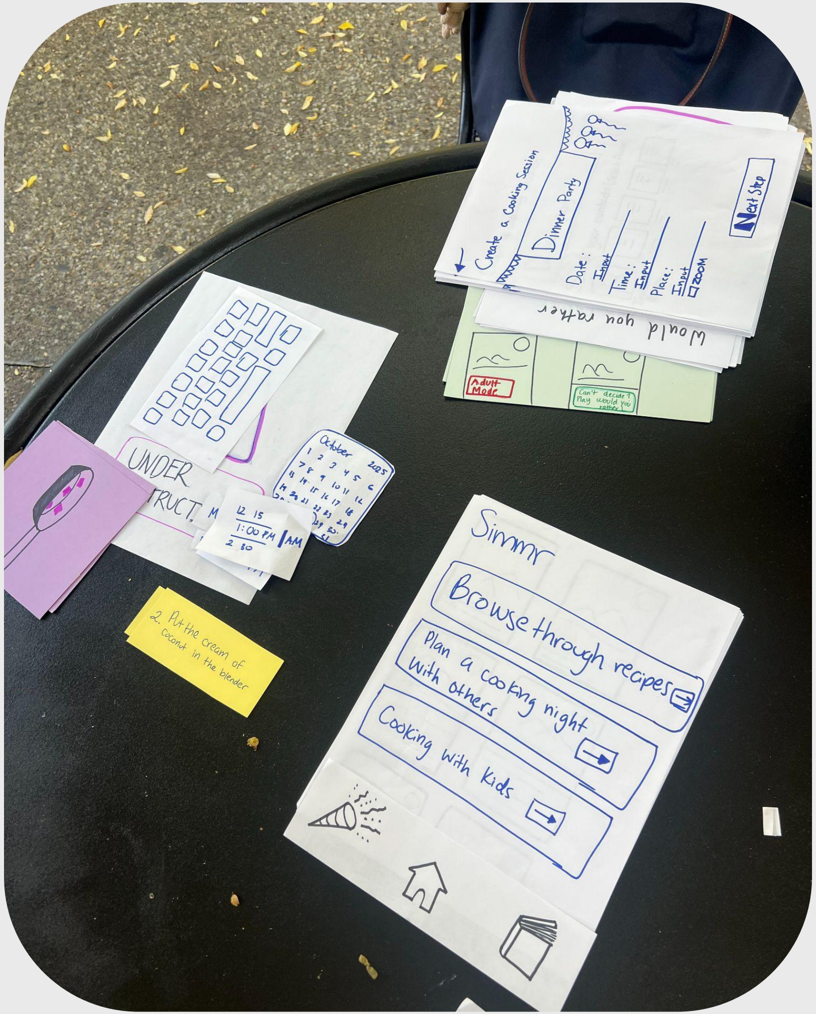
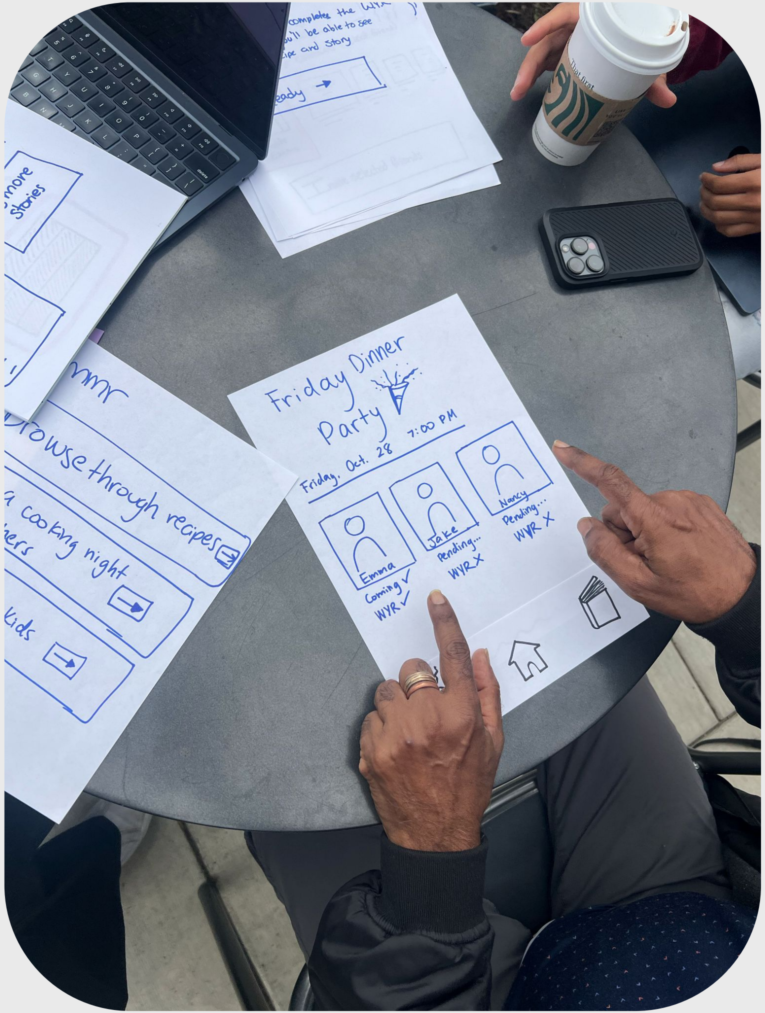
Senay
Mom
Met @ Tressider
Compensation: N/A

Rebeka
Party-Host & Author
Met @ Tressider
Compensation: N/A

Pramod
Entrepreneur & Dad
Met @ Los Altos Community Center
Compensation: N/A

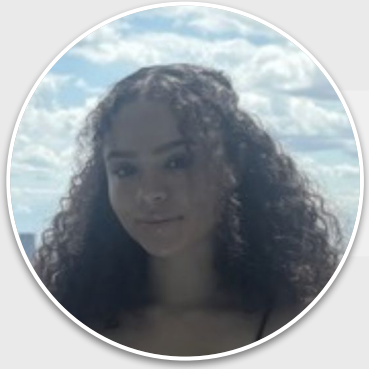
Environment & Apparatus

We built a paper prototype and simulated the app by responding to each user action ourselves. During testing, we placed the paper screens on a table in front of participants and guided them through the experience using our prepared script.


Create a Cooking Session
Dinner Party
Date: Input
Time: Input
Place: Input
ZOOM
Next Step
Would you rather
Adult Mode
UNDER
October 2025
2. Put the cream of coconut in the blender
Simmr
Browse through recipes
Plan a cooking night with others
Cooking with Kids

Friday Dinner Party
Friday, Oct. 28
7:00 PM
Emma
Coming
Jake
Pending...
Nancy
Pending...
Browse through recipes
cooking night
Kids

Team Member Roles

Jasleen S.
Alternated 3 roles



Mara B.
Facilitator, Note-Taker

Jasmine T.
Computer, Note-taker

Jasmine A.
Alternated 3 roles

Simmr.

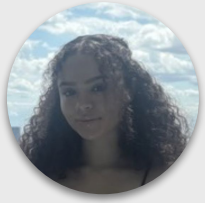
Pramod:

- Facilitator: Jasleen
- Computer: Jasmine T.
- Note-taker: Jasmine A.



Rebeka

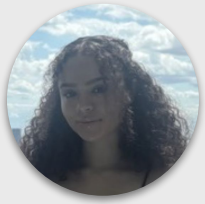
- Facilitator: Mara
- Computer: Jasmine A.
- Note-taker: Jasleen



Senay

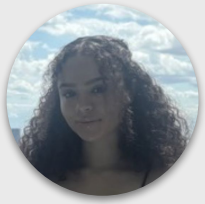
- Facilitator: Jasmine A.
- Computer: Jasmine T.
- Note-taker: Mara





Martin

- Facilitator: Mara
- Computer: Jasleen
- Note-taker: Jasmine T.



Procedures & Process!

- Gave participants a short **demo** of our paper prototype
- Explained the app's goal: a **voice-guided cooking experience** that makes learning interactive and fun
- Set up the scene: users imagined they were at home cooking with the app
- Reminded participants we were testing the **design, not them**
- Asked them to "**think aloud**" while completing each task

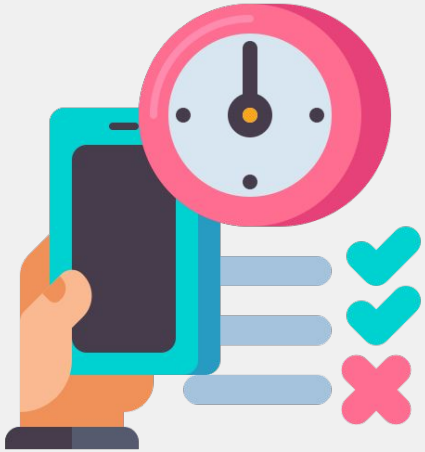
Procedures & Process!

- Placed paper screens in front of participants and **manually changed screens** as they interacted
- Participants completed **3 tasks** (simple, moderate, complex)
- Observers recorded **misclicks, hesitation, and emotional reactions**
- Encouraged participants to share **what felt confusing or intuitive** as they navigated
- After each task, users reflected on **clarity, engagement, and voice interaction**
- Asked guiding questions: *"Which parts felt easy or confusing?"* and *"What would you change?"*

Usability Goals

Goal 1: Enhance Learnability and Ease of Navigation

- **Purpose:** Users should be able to intuitively find and interact with recipes, features, and AI functionalities without prior training.



Goal 2: Increase Engagement and Emotional Enjoyment During Cooking

- **Purpose:** Ensure the prototype successfully transforms cooking from a repetitive task into an engaging, interactive, and rewarding experience.

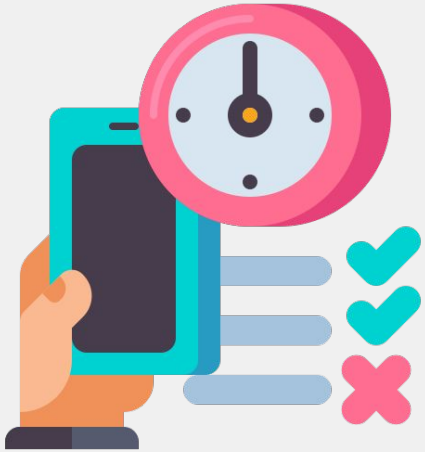
Key Measurements

Goal 1:

- **Process Data:** Instances where users hesitate, express confusion, or struggle to proceed to the next step in a task flow.
- **Bottom-Line Data:** Number of navigation errors (e.g., misclicks, backtracking events).

Goal 2:

- Process Data:
  - **Feature Exploration:** Count of distinct features used per session (Would You Rather flow, create dinner party flow, kid-friendly filter).
  - **Step Confirmation Behavior:** Frequency of simulated step confirmations (clicking “Next Step,” “Repeat,” in the voice AI flow).
- **Bottom-Line Data:** Number of participants who complete the full flow for each task and user self-reported enjoyment (1–7 Likert scale) + willingness to reuse the app.



Testing Results

Process Data

All participants:

- Found the **layout intuitive overall**, but icons (like the bottom-left party button and Zoom symbol) often caused confusion.
- Requested **clearer visual cues** for scrolling and distinguishing between “view” vs. “start cooking.”
- Wanted **checklists and reminders** during cooking to track progress and grocery lists.
- Agreed that **storytelling and voice guidance** made the app more engaging and family-friendly.

Process Data

3 participants (Senay, Pramod, Martin):

- Struggled with the **party button**, **expecting different functions** (like rewards or games).
- Suggested **adding search** and **filtering options** for recipes.
- Requested **clearer navigation** to home and better explanation of Kid Mode purpose.
- Wanted equipment, prep info and grocery lists included in ingredient sections.

Process Data

2 participants (Rebeka, Martin):

- Praised the voice AI and narration flow, finding it easy to follow.
- Emphasized that stories could teach and entertain kids, especially if **visual design became more playful**.
- Recommended **reminder features (preheating, cleanup, or pending invites)** to improve the cooking and planning flow.

Observations

- **Task 1 (Cooking Flow)** was the **easiest** and users followed steps naturally but they wanted checklists and clearer scroll indicators.

- **Task 2 (Would You Rather)** caused a few **“mis-clicks” due to unclear icon meanings** and some users said the screens felt crowded.

- **Task 3 (Dinner Party Planning)** was the **most time-consuming** task for all users. There was confusion around contact syncing, Zoom use, and invite visibility.

- **Task 4 (Cooking Flow in Kid Mode)** showed **strong engagement**. Users mentioned liking the narration but they requested **more visual and educational variety**.

Bottom-line data

- Participants made **3 navigation mis-clicks**, mainly due to unclear icons and labeling (party and Zoom buttons).
- Two participants struggled to find the Would You Rather button and confused it for the party popper
- Two participants expressed confusion at the end of the final cooking flow → struggled to click the done button
- Participants asked for clarifications on how to navigate to the next screen using the home button and check buttons 4 times.
- All participants said they would likely use this app in their daily lives while cooking.
    - Ratings (1-7 scale, 7 being would absolutely use):
        - 7: 1 participant
        - 6: 2 participants
        - 4: 1 participant

Observation on User Demographic

- Two participants focused on critiquing the **concept** instead of testing the **UI flow**.
- Even after prompting, they **struggled to follow the task** and often **spoke aloud** instead of interacting with the prototype.
- This made it difficult to collect data on **navigation and usability**.
- **Next step:** Clarify the **purpose and scope** of feedback before sessions and create a **more structured testing script** to keep participants on track.

Discussion

Achieving Our Usability goals

Goal 1: Enhance Learnability and Ease of Navigation

- **We can improve:**
  - Create a **dinner party task flow**
  - Ease to **initiate kid mode** and **Would You Rather** game

Goal 2: Increase Engagement and Emotional Enjoyment During Cooking

- **We achieved this goal well!**
  - **3 participants** said they were very **likely** to **reuse the app (6+ rating)**
  - Participants expressed **strong enjoyment** of the features, particularly the voice AI, which they found **intuitive and engaging,** and reported that all task flows were **interactive and enjoyable to complete.**

Implications of Findings

Narrative Engagement Proven Effective	Usability Gaps in Navigation & Context	Visual Appeal & Playfulness	Educational Potential
Users found Simmr's **storytelling core compelling,** confirming that **voice and narrative are the app's emotional anchor.**	**Confusion over invitation flow, unclear labels ("Zoom," "Kid Mode"), and missing feedback tools** show that users need **more guided, contextual cues.**	Kids and families respond better to **recognizable, fun visuals** than to abstract icons, guiding a **more character-driven art direction.**	**Storytelling presents a pathway to teach** cultural and scientific lessons (e.g., metric conversions, spice origins), **blending fun with learning.**

Changes

Overall Adjustments:

- Introduce clear onboarding to help first-time users understand how to interact with the voice AI and navigate key app features.
- Simplify labels and icons (“In-Person / Virtual,” “Kid Mode”) and improve button hierarchy for intuitive navigation.

Simple Task

Introduce **timed voice prompts**, audio cues that automatically play at key cooking moments to keep users hands-free and engaged.

Example: “Great job chopping the veggies! Go ahead and preheat the oven to 350 degrees.”

Moderate Task

Add a ‘Remind’ button to follow up on pending invitations and clarify the Would You Rather questionnaire flow that generates a shared, tailored recipe.

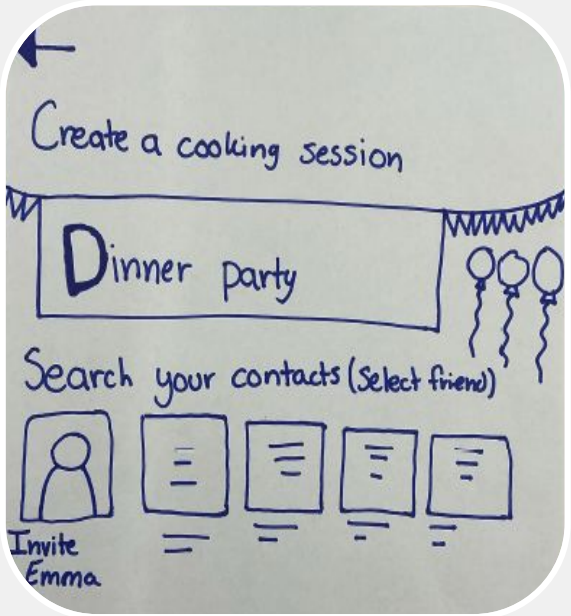
Complex Task

Design child-friendly transitions with playful visuals, simplified steps, and adaptive narration to sustain attention and guide learning.

Changes Sketched Out

Before

- Horizontal scrollview
- Large profile image



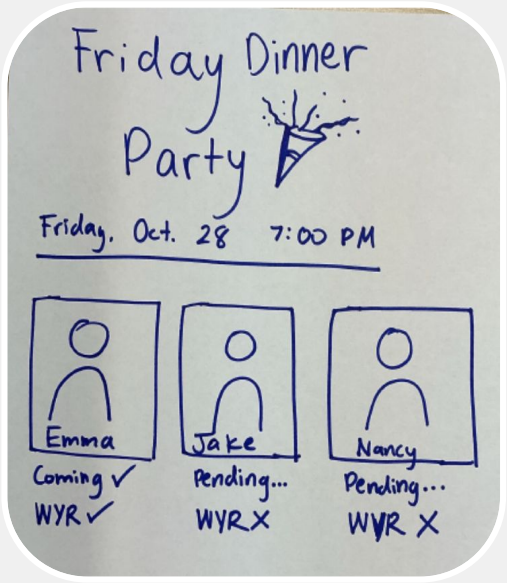
After

- Vertical scrollview of friends
- Clear Buttons to invite friends

Changes Sketched Out

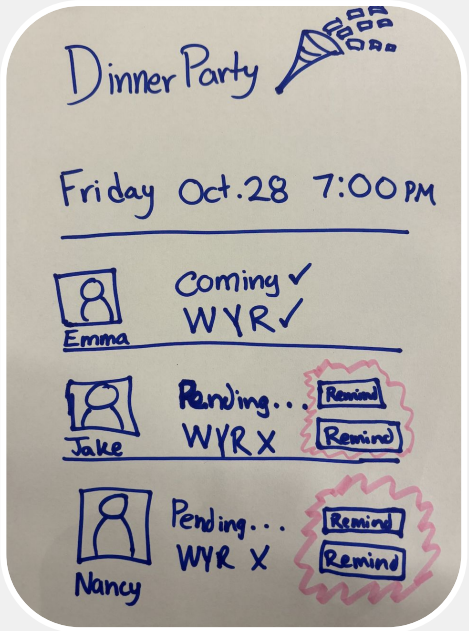
Before

- Horizontal scrollview
- No option to reach out to friends to re-notify them about event



After

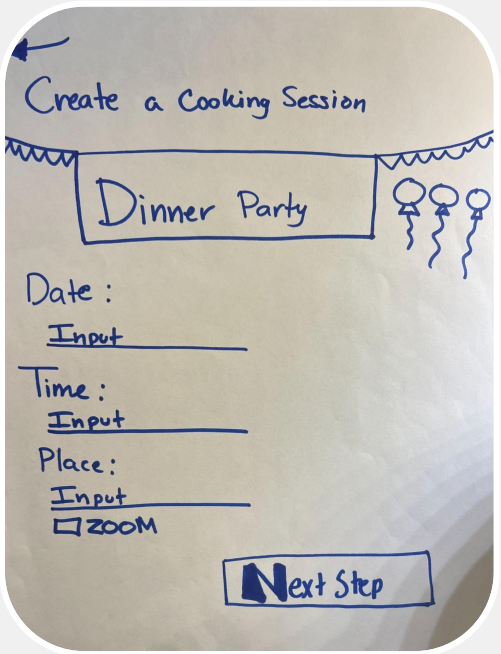
- Vertical scrollview of friends
- Clear Buttons to remind friends



Changes Sketched Out

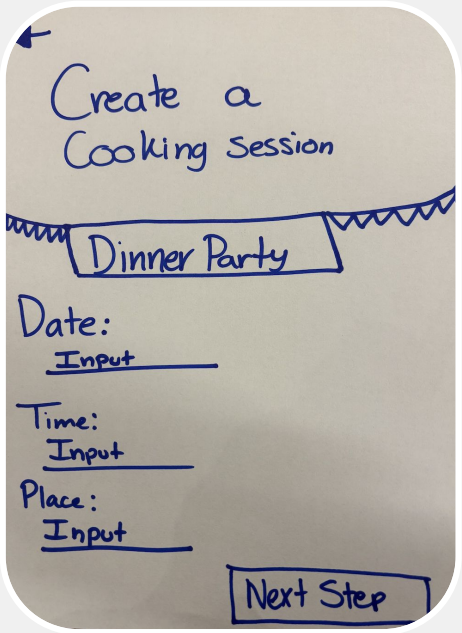
Before

- Includes Zoom as a Dinner Party location option



After

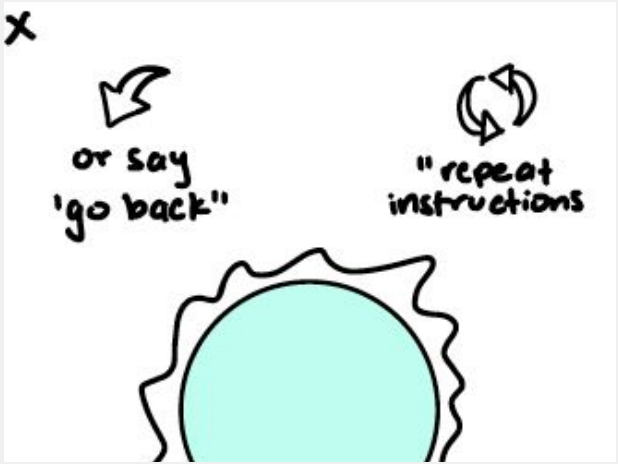
- Removing Zoom as a Dinner Party location option



Changes Sketched Out

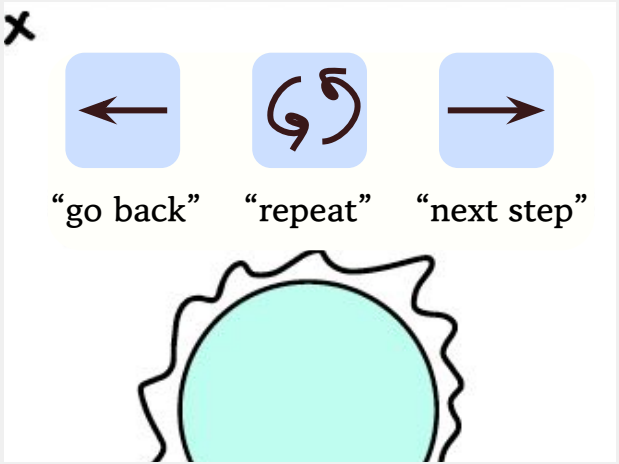
Before

- Minimal voice AI interaction instructions



After

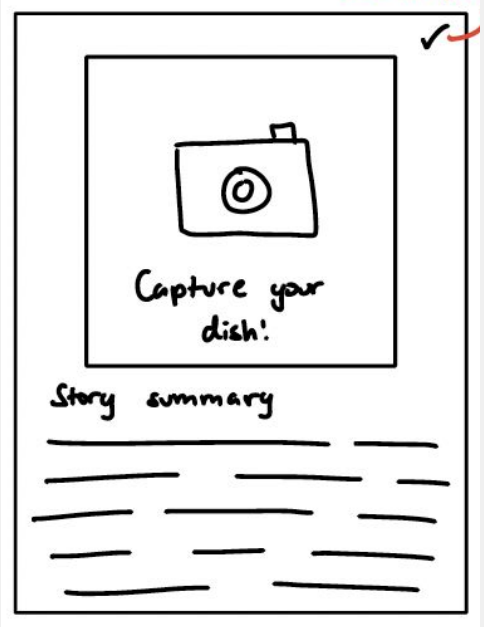
- Improved understanding of how to interact with the voice AI



Changes Sketched Out

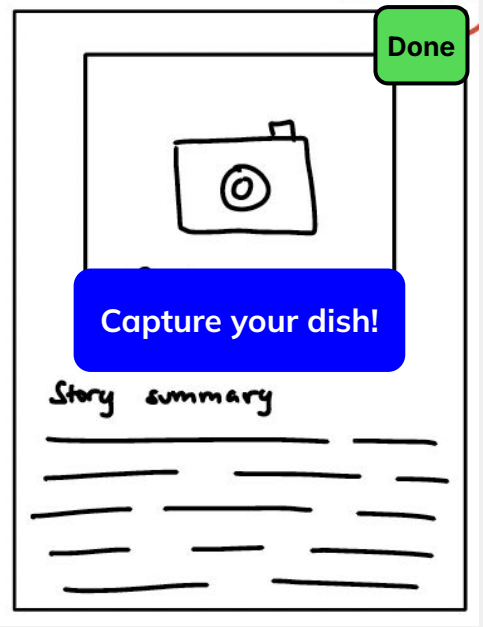
Before

- Small done button
- No clear button to capture dish



After

- Bold, clear buttons for actions users can complete



What Testing Couldn’t Reveal

Environmental Context

Noise and multitasking weren’t fully simulated; future tests should include in-kitchen settings.

Voice-AI Behavior

Paper prototyping couldn’t fully test how users respond to real-time voice feedback or speech pacing.

Audio-Driven Engagement

The impact of tone, personality, and timing in narration remains untested until a hi-fi audio prototype.

Long-Term Retention

Need longitudinal testing to see if storytelling sustains motivation over multiple cooking sessions.

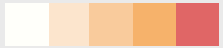
Thank you!!

Simmr.

Appendix

Critical Incidents Log - Rebeka

Incident Severity (0-4)



Incident	Severity	Key Quote	Next Step
Educational storytelling potential	1 – Cosmetic	“Use stories to educate Americans about the metric system.”	Integrate cultural or science-based storylines.
Missing “Remind Guest” option	2 – Minor	“If I haven’t heard back, I should be able to remind them.”	Add “Remind” button for pending invitations.
Missed cooking reminders	2 – Minor	“Maybe it could remind me to preheat the oven.”	Add contextual reminders for prep steps.
Unappealing visuals for kids	**3 – Major**	“Kids aren’t going to be entertained by eggplants alone.”	Redesign with playful, recognizable characters.
Confusion over “Zoom” location field	**3 – Major**	“Zoom? What is that. Let’s bring back in-person gatherings.”	Clarify location options (“In-Person / Virtual”) to reduce ambiguity.
Button confusion in dinner creation	**4 – Catastrophe**	“I didn’t know which button to press next.”	Redesign navigation hierarchy for clarity.

Critical Incidents Log - Martin

Incident Severity (0-4)

Incident	Severity	Key Quote	Next Step
Found the app intuitive and easy to navigate	0 – No Problem	“Everything felt really natural. I didn’t need to think too hard about where to go.”	Keep interface flow as is; maintain current layout and navigation structure.
Think about changing or adding a label to the invite friends icon	1 – Cosmetic	“I wasn’t totally sure what that icon meant until I clicked on it. Maybe a small label would help.”	Add tooltip or short label to clarify icon purpose.
Suggested adding reminder options for inviting friends	2 – Minor	“It would be nice if I could set a quick reminder to send invites later, especially when I’m busy.”	Add a reminder option in the invite friends flow or explore notification settings.
Wanted intro for “Would You Rather” recipe feature for clarity	3 – Major	“Once I understood the ‘Would You Rather’ part, it was great—but at first I didn’t know what I was supposed to do.”	Add a short onboarding message or demo pop-up explaining how to interact with the feature.
Wanted clearer buttons (especially the top-left check mark to complete the recipe walk-through)	4 - Catastrophe	“I didn’t know what that button did or where to go next. I felt a bit stuck.”	Redesign button layout; add clearer visual feedback and labeling for navigation actions.

Critical Incidents Log - Pramod

Incident Severity (0-4)

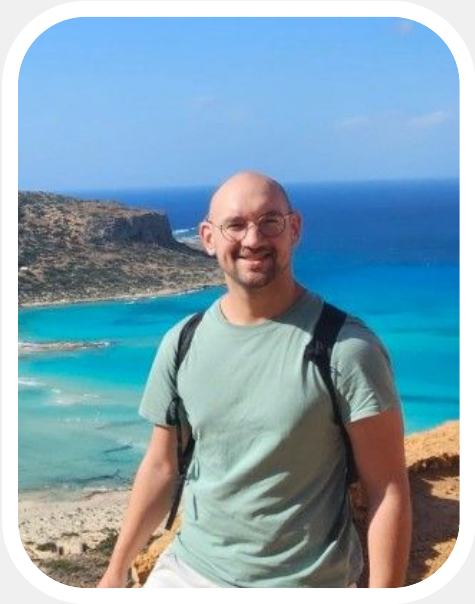
Incident	Severity	Key Quote	Next Step
Completed the simple task of finding a recipe efficiently	0 - No Problem	“After I scrolled I easily found the tropical recipe.”	N/A
Thought planning a party icon was for rewards	1 - Cosmetic	“Is this button here for cooking rewards?”	Introduce dinner parties earlier in onboarding or change icon.
Confused about WYR during dinner party creation	1 – Cosmetic	“I don’t understand why I am playing the game again to create a dinner party.”	Make users take the quiz after the dinner party is fully created
Was slower for the dinner party creation task flow	2 – Minor	“I keep having to look at the page for what button to press.”	Make buttons and overall flow more clear
Confused about how to initiate the WYR game	3 – Major	“Is the would you rather game a rewards thing?”	Introduce the point of WYR earlier in the process
Got stuck on whether to press zoom/what to put for location	4 - Catastrophe	“I’m not sure what to do here. Is the zoom button to get a link for the location?”	Remove zoom option

Critical Incidents Log - Senay

Incident Severity (0-4)

Incident	Severity	Key Quote	Next Step
Liked having the Would You Rather button overlay the scrollview	0 - No Problem	“I like this button it reminds me of the button on the google app.”	N/a
Interacted well with the voice AI and capturing the recipe	0 - No Problem	“This is a clever idea.”	N/a
Hesitated on closing story mode the first time before continuing to the next task	1 – Cosmetic	“What do I do from this screen?”	Make buttons and flow more clear
Hesitated to press start to initiate the voice AI	1 - Cosmetic	“I wasn’t sure what button to press.”	Make buttons and flow more clear
Had an issue closing out the story mode and going to the logs page	3 - Major	“The chevron in the top right was hidden and it didn’t make sense the placement.”	Change the look and location of the button to be in a clearer space
User had trouble knowing which buttons to press in the dinner party creation steps	4 - Catastrophe	“These buttons are too small and the pictures are hard to read.”	Make the pictures vertical so they are bigger

Testing Results



Martin
Data-Scientist & Dad

What went well:

- Found the app intuitive and easy to navigate
- Enjoyed the “Would You Rather” recipe feature

What didn’t go well:

- Wanted clearer buttons (especially the top-left check mark)
- Suggested adding reminder options for inviting friends

Testing Results

Senay
Mom

What went well:

- Navigated through the screens with minimal errors and efficiently
- Liked having the Would You Rather button overlay the scrollview
- Saw herself using the app in everyday cooking (liked the hands-off aspect)

What didn't go well:

- Hesitated on closing story mode the first time before continuing to the next task
- Confused about whether friends would be cooking with her or if she was cooking for them

Testing Results

Rebeka
Party-host & Author

What went well:

- Loved the storytelling concept, calling it creative and engaging.
- Completed all three task flows (simple, moderate, complex) efficiently and intuitively, demonstrating strong usability for literate, story-oriented users.

What didn't go well:

- Desired more human connection. She suggested removing the Zoom meeting option to favor real, shared cooking experiences.
- Felt the kids' storylines lacked depth and recommended more imaginative, educational narratives to keep younger audiences engaged.

Testing Results

Pramod
Entrepreneur & Dad

What went well:

- Completed the simple task flow efficiently
- Found kid mode engaging and liked the change in background color

What didn't go well:

- Was confused by the zoom option
- Confused the party popper icon for rewards and Would You Rather
- The Would You Rather game in between dinner party creation confused him

Planned UI Changes

Dinner Party Setup

- **Remove "Zoom" option** as a location choice.
- **Add a vertical, scrollable invite list** for easier navigation and selection of guests.

Would You Rather Feature

- Add a **short explanation** clarifying its purpose and how it's used.
- **Move "Would You Rather"** to be an **optional, post-setup activity** rather than part of the initial setup flow.
- Introduce **customization options** available after completing a "Would You Rather" session.

Home Screen

- **Remove the persistent home screen**; show it **only on first app launch** for onboarding.

Filters and Learning Preferences

- Add a **"Kid Mode" filter** within a new **dedicated Filter page**.
- Add a **"30-Minute Meals" filter** for quick recipe discovery.
- Add a **"Learning-Focused Meals" filter**, allowing users to pick stories designed for learning
- Allow users to toggle the **degree of storytelling** they want during the meal experience.

Capture Experience

- Make the **"Capture Your Story" button** more prominent and intuitive.
- Provide **clearer next-step guidance** after a story has been captured.

Script

Test Script

General Instructions

Objective: Ensure consistency, validity, and reproducibility across user testing sessions.

1. **Welcome + Introduction**
   "Thank you for participating in our usability test. We're testing an early prototype of our cooking app that helps make learning and cooking in the kitchen more interactive and enjoyable through storytelling. We're evaluating the design, not you, so there are no wrong answers."
2. **Setup**
   - Ensure recording tools (screen recording, audio, observer notes) are ready.
   - Explain that you'll be observing and occasionally asking them to "think aloud" as they go through each task.
3. **Brief System Demo**
   "Before we start, I'll give you a quick overview of how the prototype works. You can tap on buttons, scroll through screens, and speak aloud to interact with the voice AI. For example, you might say something like, 'Start cooking' or 'Next step.' However, I won't show you how to complete any of the tasks you'll be doing — that's what we're testing."
4. **Think-Aloud Protocol**
   "While you're completing the tasks, please share what's going through your mind — what you're trying to do, what you expect to happen, or anything that feels confusing or exciting."
5. **Observer Reminders**
   - Record positive and negative critical incidents (mistakes, emotional responses, quotes, successes).
   - Note time-to-completion and any errors or hesitation points.

Task 1: Finding and Cooking the "Tropical Paradise" Recipe

"Your first goal is to find the recipe called *Tropical Paradise* in the Kitchen. Once you find it, try cooking that recipe with the AI assistant, and when you're done, capture a photo of your finished dish using the app."

Observer Notes to Track:

- Time taken to locate recipe.
- Misclicks, backtracking, or uncertainty.
- Ease of interacting with voice AI during cooking flow.
- Emotional response when taking the photo (fun, tedious, confusing?).

Task 2: Finding a Recipe by Playing 'Would You Rather'

"Now, imagine you're not sure what to cook. Use the *Would You Rather* feature to find a recipe through that game. Your goal is to explore and end up with a recipe you'd actually consider making."

Observer Notes:

- How intuitive the user finds the game as a discovery mechanism.
- Whether they understand the purpose of the feature (fun vs. functional).
- Engagement level and any frustration during transitions.

Task 3: Creating a Dinner Party with Friends

"For your next task, imagine you're hosting a dinner with a few friends. Use the app to create a dinner party, invite them, and explore what recipes might fit that context."

Observer Notes:

- Ease of finding the "dinner party" feature.
- Comprehension of social/invitation flow.
- Reactions to shared recipe options or gamified aspects.

Task 4: Finding a Kid-Friendly Recipe and Cooking with Voice AI

"Finally, imagine you're cooking with your kids. Find the kid-friendly recipe called *Pirate Adventure* in the app and start cooking it using the voice AI assistant. You can try interacting verbally as if your hands are occupied."

Observer Notes:

- Ability to identify and navigate to the kid-friendly content.
- Comfort with voice interaction.
- Engagement and perceived enjoyment of the voice experience.
- Any frustration points or unclear instructions.

Post-Test Interview

- How did you feel using the app overall?
- What parts of the experience did you find most enjoyable or frustrating?
- Did the voice AI make cooking easier or more complicated?
- Would you use this app again in your real cooking routine?

Pros and Cons

Native Mobile App:

PROS	CONS
1. Hands-Free, Natural Interaction: Designing around the context of use and reducing cognitive and physical load (lecture 07, early stage prototyping): Cooking involves multitasking since users' hands are often busy or messy. Voice AI removes friction by allowing users to stay engaged with recipes and stories without needing to pause and touch a screen. 2. Encourages Flow and Play: Users can fully experience the app's story-driven cooking guidance through visuals, audio, and touch, creating an immersive and engaging cooking flow. 3. The larger screen supports rich storytelling: animations, music, and narration can be layered to enhance emotional connection. 4. Voice interaction and prompts feel natural on iPhone (e.g. Siri) 5. Recipes and dinner parties can be easily shared with friends or family through built-in social integrations (e.g. Messages)	1. Limited Multimodal Interaction: Mobile voice apps depend primarily on audio, which can make it harder to integrate visual or tactile cues that reinforce learning or creativity (e.g., seeing ingredients, timers, or textures). This limits multimodal engagement, which HCI research shows is key for maintaining attention and deepening understanding through sensory feedback. 2. Some storytelling features may feel redundant if users already rely on voice assistants like Siri, Alexa, or Google Home in their kitchens. 3. Potential for Cognitive Overload: If the voice interface overtalks or gives too much information at once, users may experience listening fatigue or lose track of steps. This risk can be reduced with adaptive pacing or "repeat last instruction" features, learned through early testing and iteration. 4. Environmental Noise & Recognition Errors: Kitchens are noisy environments; blenders, kids, and background chatter can interfere with speech recognition accuracy.

Digital Wearable App:

PROS	CONS
1. Users can navigate recipes, receive prompts, or track progress without touching their phone. Ideal when their hands are messy while cooking. 2. Wearables enable short, contextual interactions (e.g., step reminders, timers, or "fun fact" pop-ups) that enhance immersion without distraction. 3. Could integrate calorie tracking, nutrition insights, or activity metrics (like heart rate during cooking) to position the product as part of a holistic wellness experience. 4. Few cooking or learning apps extend meaningfully into wearable devices 5. Parents cooking with kids can keep both hands free while following visual or haptic cues from their smartwatch	1. Our target users (parents, single moms) are less likely to own a wearable 2. Designing a meaningful UI/UX experience on small screens is complex; the app would need to prioritize minimal interactions or voice integration. 3. The wearable experience might not appeal to our broader audience if most users are content with the mobile app's visual engagement. 4. Adding sensors or tracking (e.g., movement, voice) introduces new ethical and security considerations regarding data collection and storage. 5. Some interactions (like step timers or notifications) may be replicable via iPhone notifications, making the standalone wearable app less essential.

Prototype Construction

How it was built

Our team met multiple times to execute the prototype construction. We first met to ideate on the execution of concept boards and key screen sketches, and next to construct the low-fi paper prototype. The prototype was created using paper and markers, referencing our earlier simple, moderate, and complex story boards. Each team member took ownership of one prototype flow (simple, moderate, or complex), while the fourth member floated across flows to fill gaps and refine transitions for clarity. We assembled and tested the prototype in the library to simulate a collaborative, realistic user-testing environment.

Operation & Features

Each “screen” was represented by a **paper card**, with **interactive elements** (buttons, dropdowns, voice prompts) layered using sticky notes for dynamic interaction. During testing, **one member acted as the “computer,”** swapping screens and responding to user actions verbally or by revealing the next paper screen. The **simple task** (listening to a story while completing a recipe) required fewer screens, while the **moderate task** (hosting a dinner party) demanded more detail, prompting us to design new UI transitions for inviting and syncing friends.

Design Decisions

We prioritized **clarity over visual polish**, using consistent layouts and labels to ensure users could follow each task flow. Added extra screens for the moderate flow after realizing that **inviting friends required additional steps** (story voting, confirmation, group chat). The paper prototype’s **tactile, low-tech setup** encouraged quick iteration and clear feedback without the distraction of visual fidelity.

Tools: Paper, pens, markers, scissors