

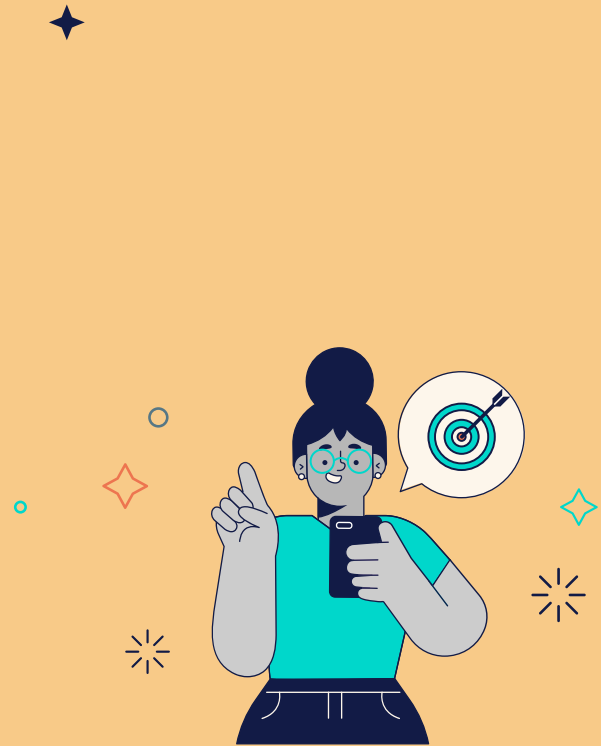
CAPSULE

Sketching, Low-fi Prototyping & Pilot Usability Testing



01

Value Proposition





Project Title: Capsule

How did we land on the name?

We thought of the word “time capsule”, which is used to store and preserve information. We didn’t want it to sound too archaic, so we removed “time” and just kept “capsule”.

Value Proposition:

Share knowledge, receive knowledge, one capsule at a time.



Capsule: The Team



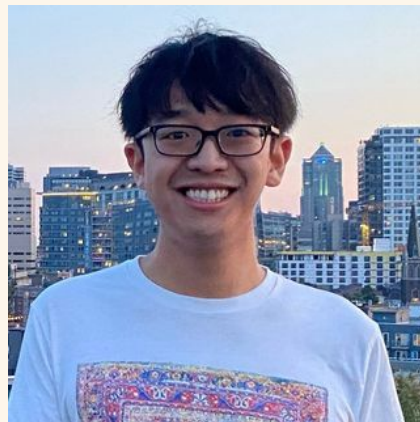
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Problem/solution overview



Primary User: **college students, young people moved to in a new city**

Problem: **How might we empower people to share knowledge with others in their community?**

Solution: **An app that prompts you to do something and share them (e.g. share a fun fact, share what you learned)**

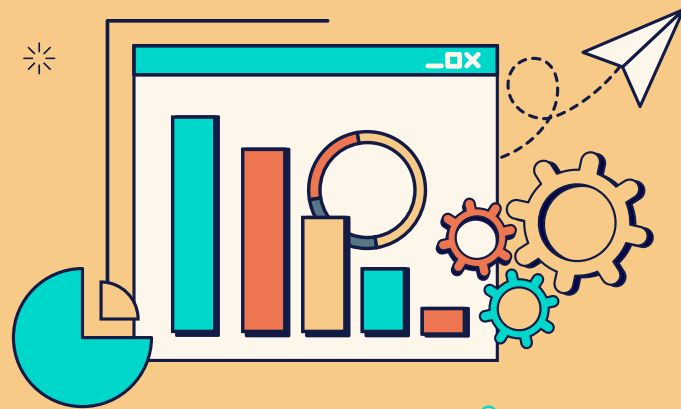


Outline

1. Value proposition
2. Sketching and Explorations
3. Selected Interfaces and Rationales
4. Low-fi Prototype Construction
5. 3 Task flows
6. Testing Methodology
7. Testing Results
8. Discussion

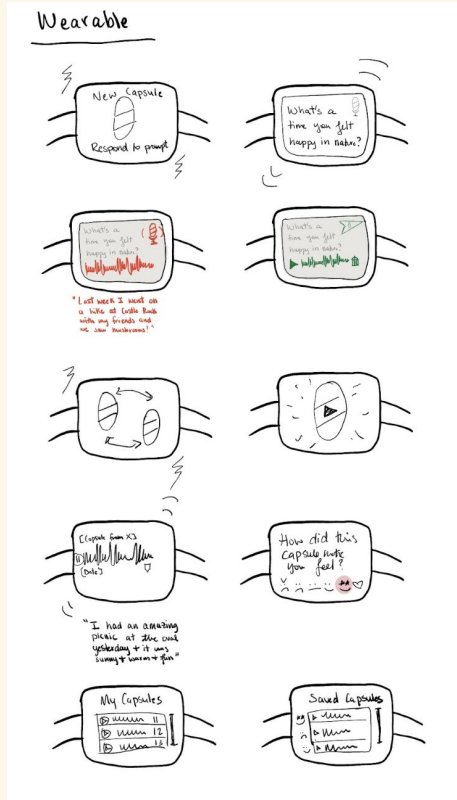
02

Sketching explorations





Concept Sketches: Wearable

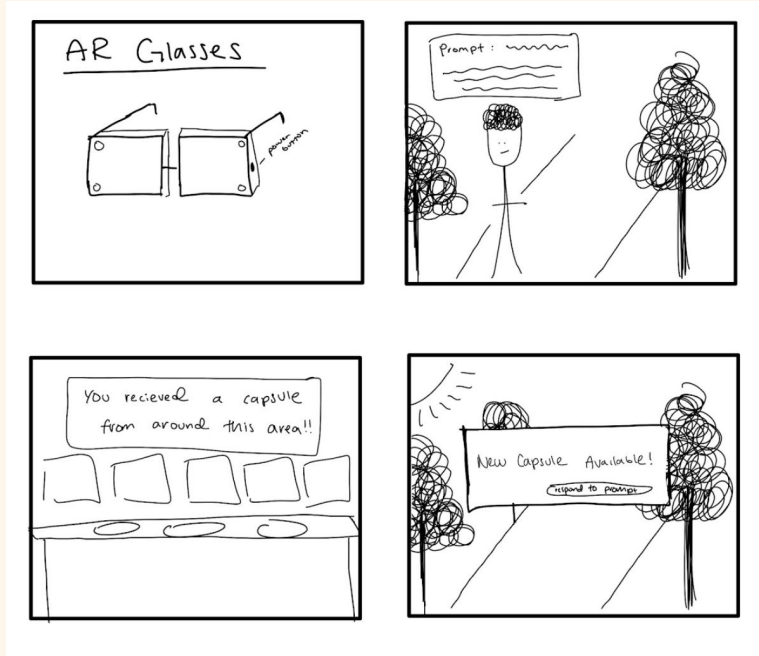


This concept is for a smart watch app which focuses on voice recordings and simple reactions instead of written messages.





Concept Sketches: AR



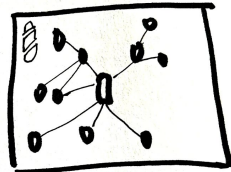
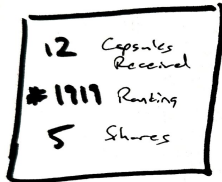
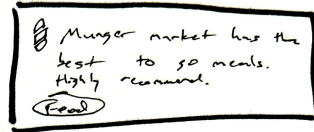
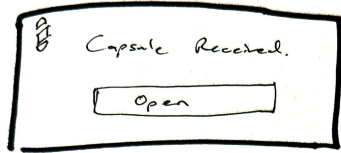
This concept is an AR glasses app which focuses on location based capsules.



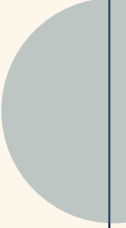


Concept Sketches: Widget

Widget Concept Sketch



This concept is for simple home screen widgets on your mobile device to track and see your capsules.

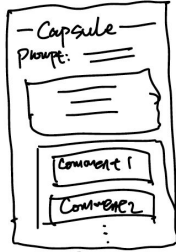




Concept Sketches: Mobile App



↑
People set mood
when they get the
prompt



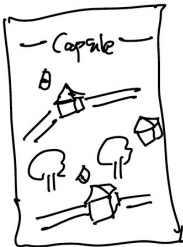
↑
Read other
people's comments



↑
Organize capsules
by tags



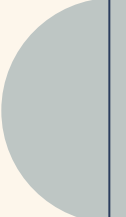
↑
profile



↑
Map to see
where capsules
come from

Mobile Concept Sketch

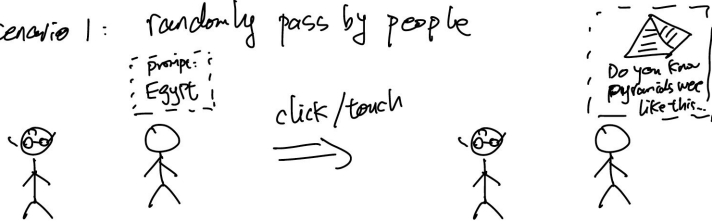
This concept is for our mobile version of our idea. Focuses on asynchronous receiving and sending capsules.



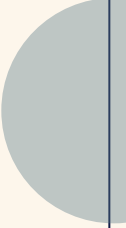
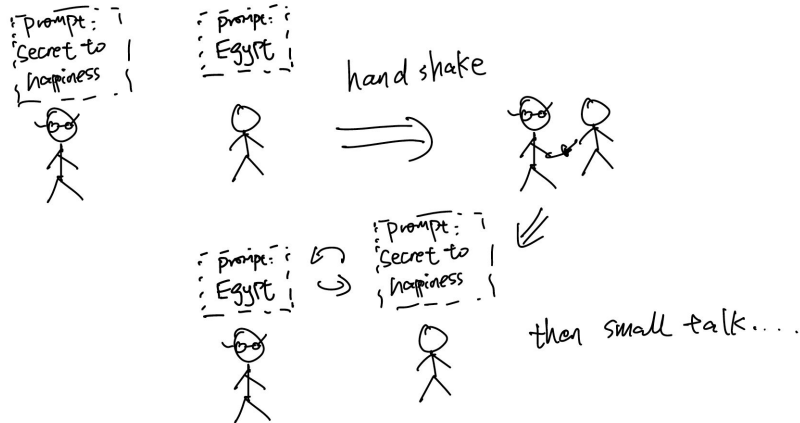


Realization: AR

Scenario 1: randomly pass by people



Scenario 2: Exchange capsule





Realization: Mobile



03

Selected interface & rationale



AR

Pros

Enhanced User
Experience

Better
Visualization/Experience

Cons

Distraction and Safety

Higher Development
Costs

Performance Issues

Battery draining and
Streaming cost

Bug Severe performance problems in all versions of ARCore Plugin 4.1.0-preview9 onwards

arcore performance

Mobile

Pros

Lower development cost

Familiar user interface

On-the-Go Access

Cons

Less innovative user
experience

Rationale: we want users to be able to receive/send capsules whenever they want, in any environment.

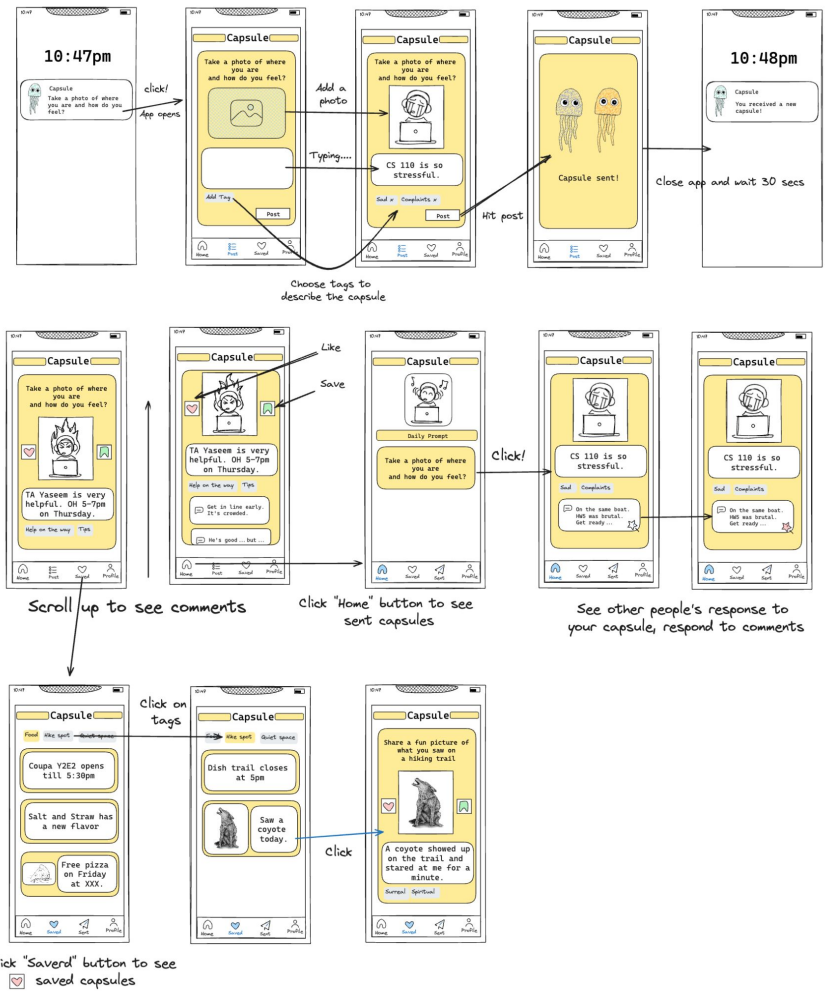
04

Low-fi prototype construction





We started with the mobile realization and eventually dividing the screens into 4 task flows.



05

Low-fi prototype: 3 task flows

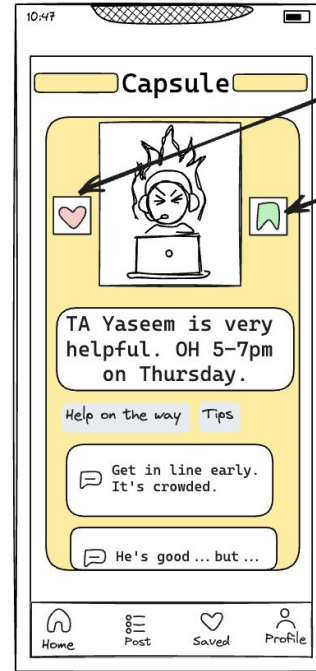
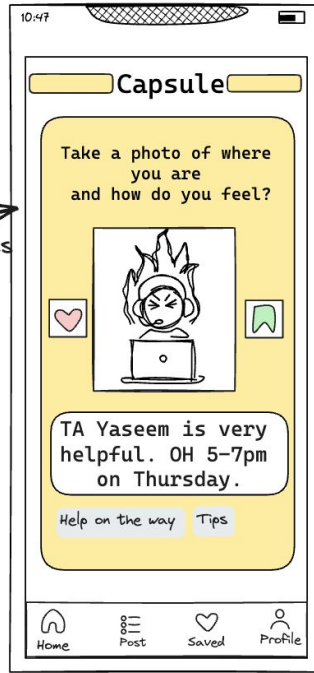




Simple Task: Receiving a Capsule

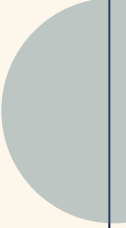


click!
App opens



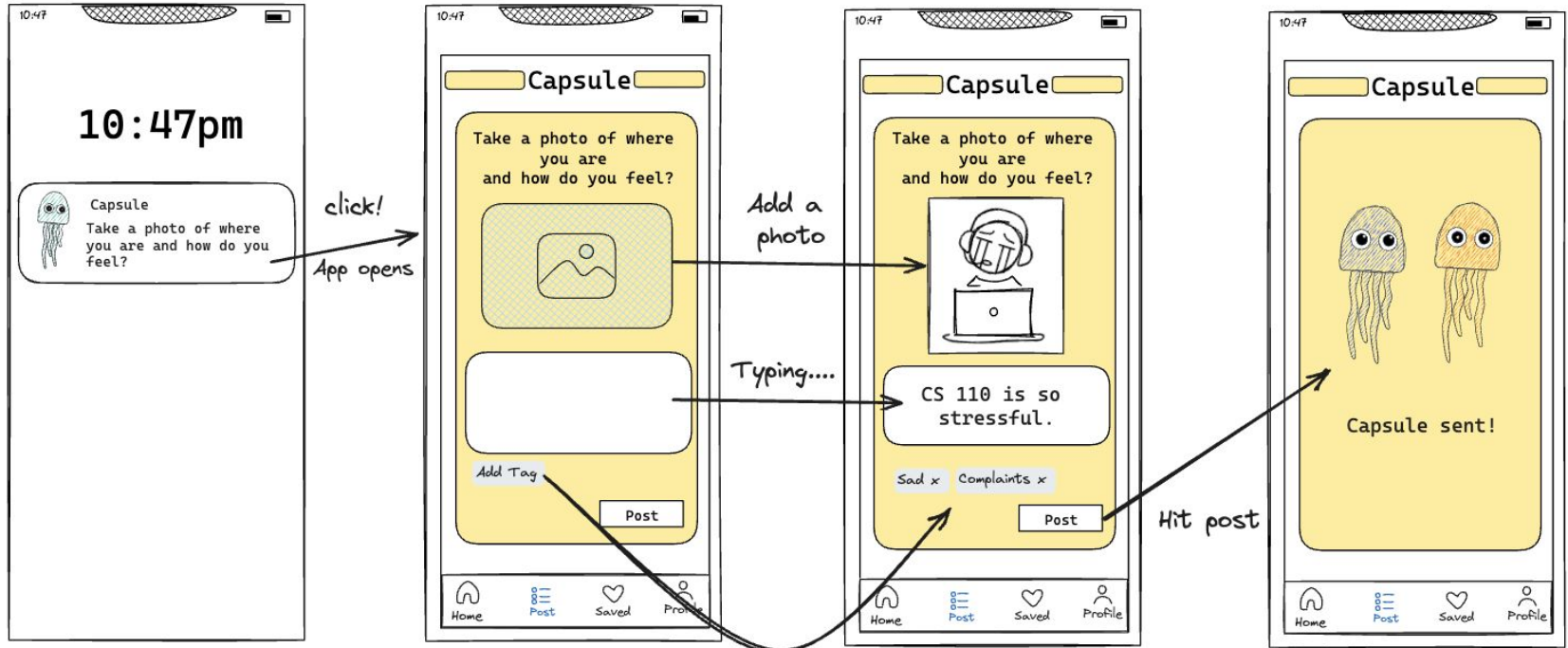
Like
Save

Scroll up to see comments





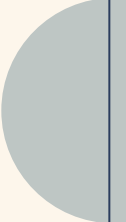
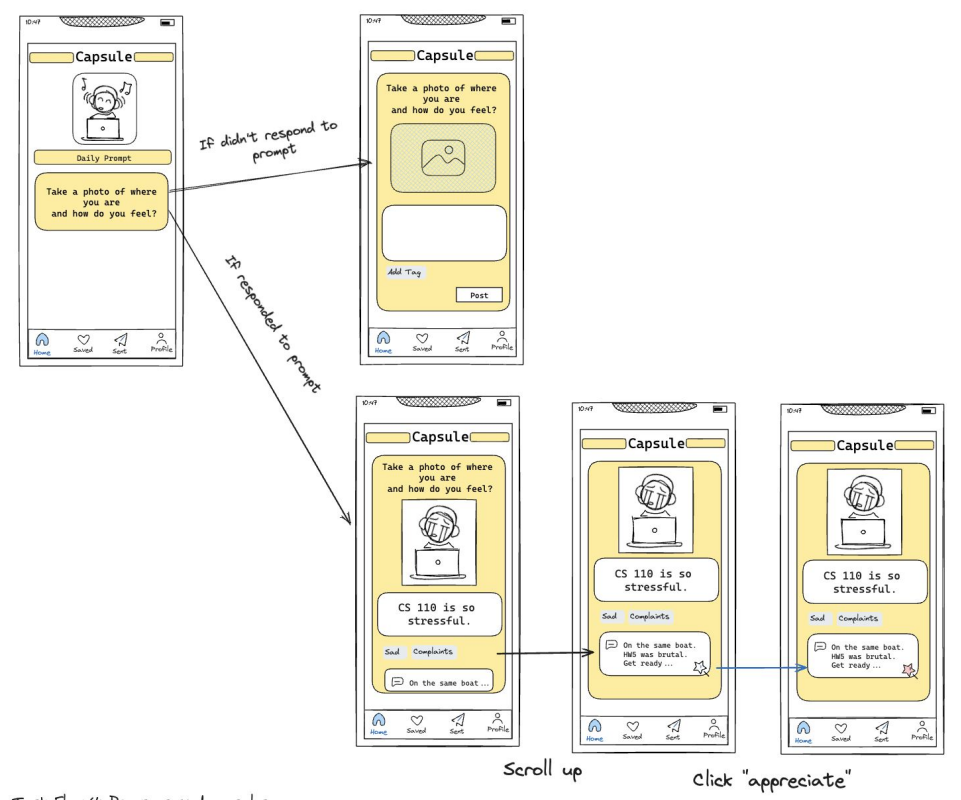
Moderate Task: Responding to Prompt



Choose tags to describe the capsule



Complex Task: Home Page



06

Testing Methodology





Recruitment & Participants

- All participants were recruited through friends of friends or out in the community by asking nicely!
- They were not compensated.
- We looked to get a balance of gender, and did our best with age as well.
- We had 4 total:
 - Ryan, 22, college student, Southern California
 - Amelia, 31, tech worker, Menlo Park
 - Dalton, 26, law student
 - Lauren, 23, nurse, Stanford Hospital





Environment, Procedure, & Usability Goals

- Environment & Apparatus
 - In-person tests with screen printouts
 - Locations: Munger, Coupa Cafe
 - Observations: Button pressing, facial reactions, spoken feedback
- Procedure
 - Introduction & project overview
 - Consent for participation & photos
 - Explain "Capsule" app & test flow
 - Encourage verbalized thoughts during use
 - Gather post-test feedback
 - Express gratitude
- Usability Goals and Key Measurements
 - Success Indicators: **Smooth task execution, interest in the concept**
 - Error Indicators: Unexpected user actions, navigation confusion

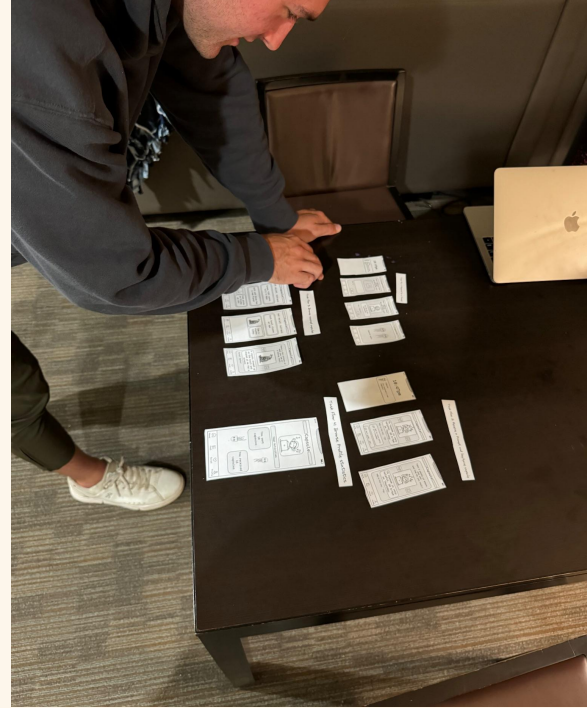


07

Testing Results



Ryan going through testing!



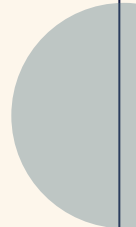


Big Picture

All four testers:

- **Were able to carry out the task with little confusion**
- **Were interested to receive capsules full of knowledge that is useful or interesting**
- Weren't sure if they'd always receive things they liked or enjoyed
- Enjoyed the idea of some sort of anonymous situation, but again unsure of the content they would receive
- Were interested in the ability to share capsules with friends and spark ideas to use the capsules they received
- Wanted to see more capsules than only the ones they received
 - Offered up the idea of searching through the capsules of a given prompt

Usability Success Indicators: **Smooth task execution, interest in the concept**





Suggestions / Relevant Observations

Three testers:

- Wanted to make the capsules focused and specific, covering topics that were interesting to them
- Wanted a sharing process that was simple and easy
- **Enjoyed the concept of 'give knowledge, receive knowledge'!**
- Were interested in the concept of choosing your prompt
 - Some prompts were more deep than others, sometimes people aren't in the mood to be deep and vulnerable
 - Emphasized the importance of privacy here!





Suggestions / Relevant Observations

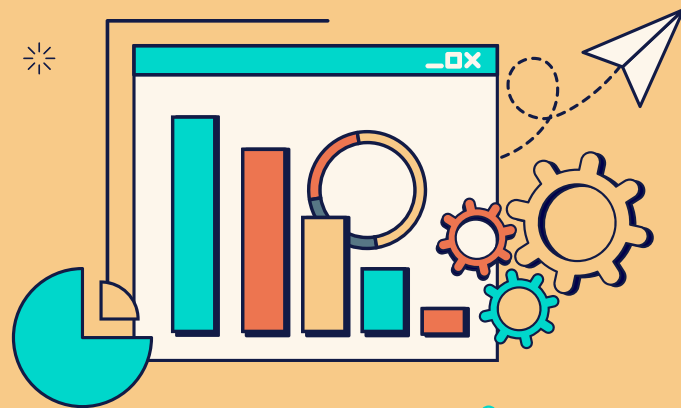
One tester:

- Was curious about a timeline/scroll feature to see more capsules than their own
- Suggested a forum or community feature for users to discuss popular Capsules.
- Expressed interest in a “trending” page



08

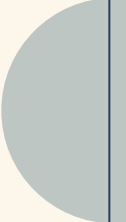
Discussion





Key Takeaways

1. **Content Relevance and Privacy:** While users appreciated the idea of receiving intriguing capsules, there was concern about content relevance and potential unsolicited material. The desire for an anonymous setup highlighted a priority for privacy and data protection.
2. **Interactivity and Engagement:** Feedback showed a need for varied prompts, from deep to light interactions, and features like searching through capsules or a "trending" section to enhance engagement.
3. **Sharing and Community:** The interest in sharing capsules emphasizes the community aspect. Features like a community forum could foster a sense of communal learning and connection.
4. **Navigation and UI Concerns:** Users sought clearer navigation, suggesting a need for interface redesign to make the app more intuitive.





Change in our design

1. Include a trend page
2. Design functionalities that will increase interactivity.
3. Have stronger protection of privacy.



Thanks!

