



Creative Tools *for Everyday Users*

Assignment 5 Sketching, Low-fi Prototyping & Pilot Usability Testing

Team 1 – Nhu, Emma, Adi, Aanika

COTERMS AND PROUD



Nhu P.



Emma W.



Adi B.



Aanika A.

We are building...

DareDrop



Why this name:

Each dare feels like a drop: a small, spontaneous **spark** of creativity that lands in your day, capturing the energy of playful discovery.

Every day, a new dare is dropped into your world: **quick, doable, and fun to share.**

Who:

Graduates navigating post-college transitions.



Problem:

After graduation → young adults lose the structured environments that once inspired creativity → everyday life becomes routine → harder to explore new interests or feel connected.

Solution:

A playful app that helps new graduates rediscover creativity and connection through small, everyday *dares* that inspire curiosity, exploration, and self-expression.

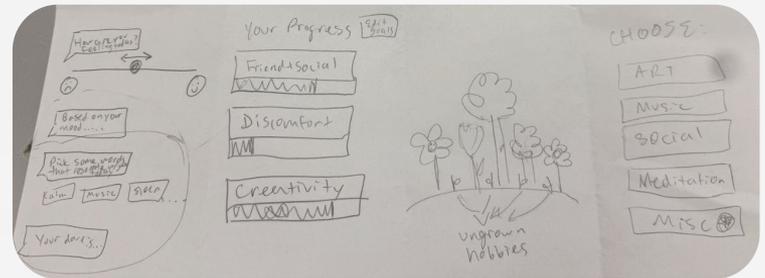
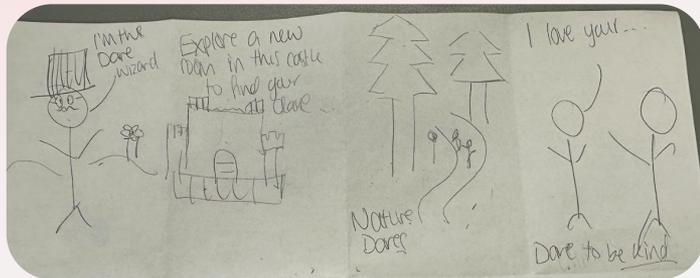
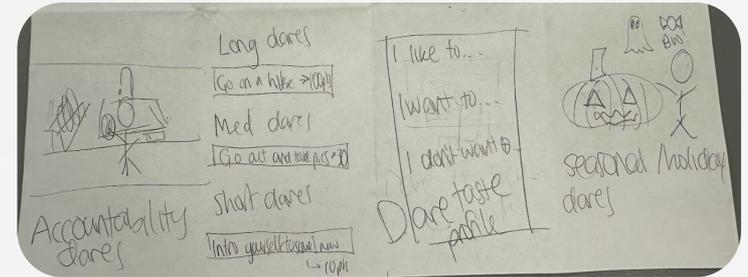
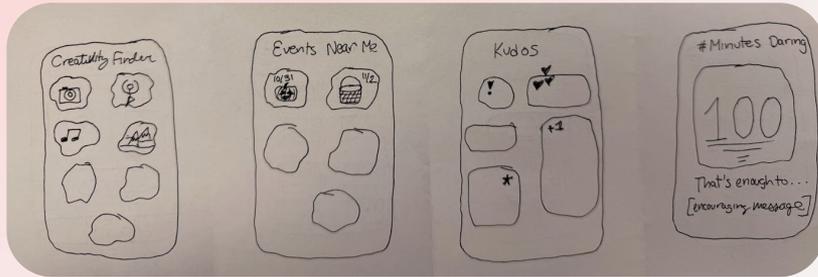
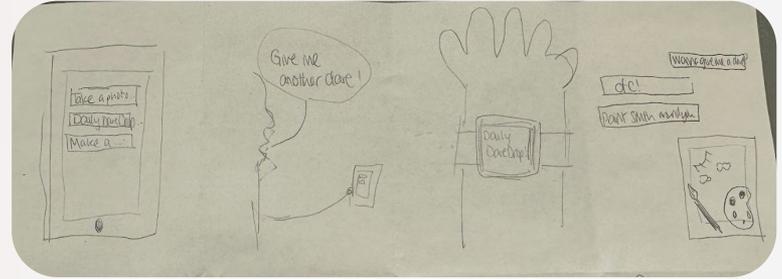
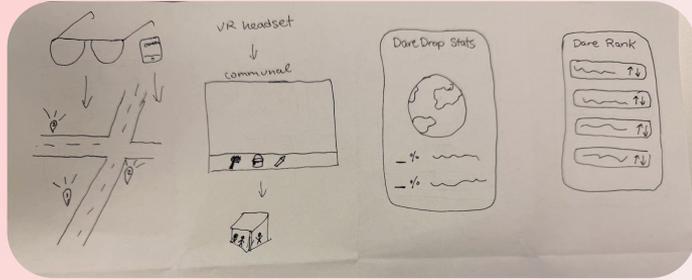
***DareDrop: Everyday creativity, delivered
as a dare.***

Playful prompts that turn ordinary moments into creative ones.

Outline:

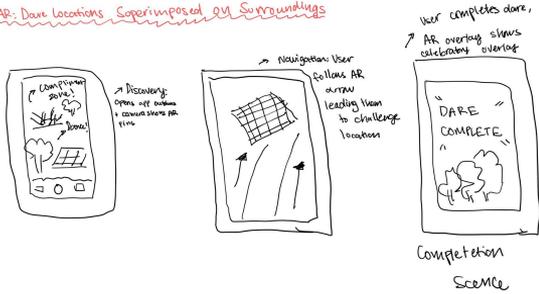
- 1. Sketching Explorations**
- 2. Selected Interface & Rationale**
- 3. Low-Fi Prototype**
- 4. Testing**
- 5. Results & Next Steps**

Sketching explorations

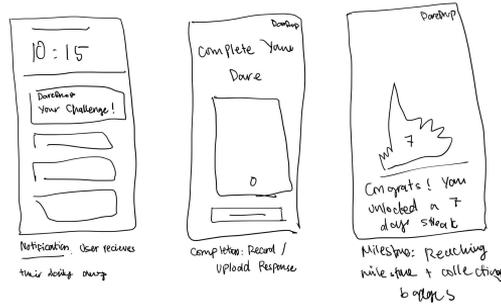


Sketching explorations

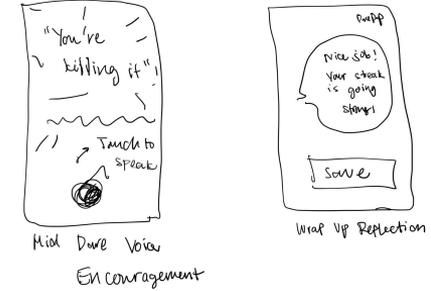
AR: Dare Locations Superimposed on Surroundings



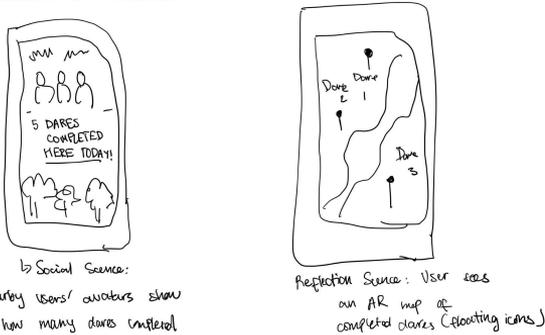
Mobile: Sprints / Reward System



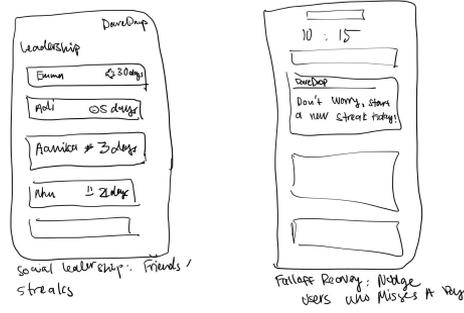
Voice: Conversation - style Dare Suggestions



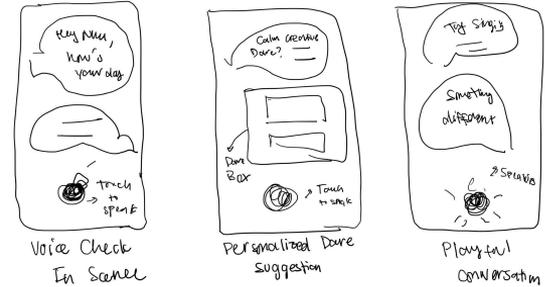
AR: Dare Locations Superimposed on Surroundings



Mobile: Sprints / Reward System

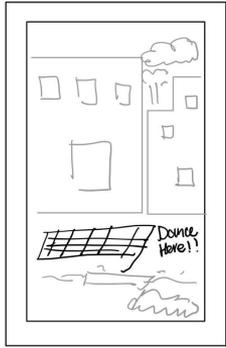


Voice: Conversation - style Dare Suggestions

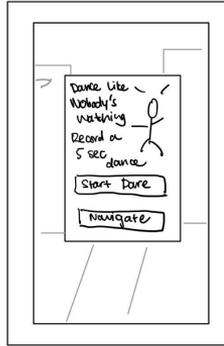


Sketching explorations: 2 further fleshed out realizations

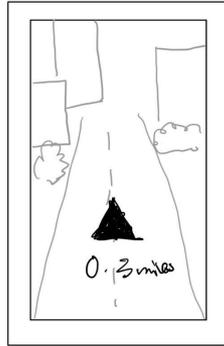
AR: Dave Locations Superimposed on Surroundings



Dave AR POPUP
Camera showcases
Dave



Dave Details POPUP
User selects a Dave to
view details and navigates
to it

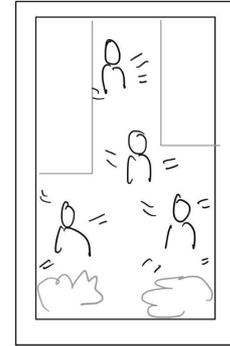


AR Navigation / Path Overlay
Lead the user to the
location

AR: Dave Locations Superimposed on Surroundings



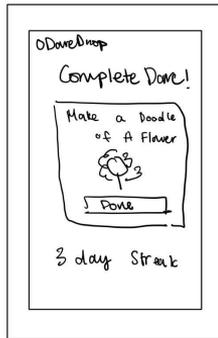
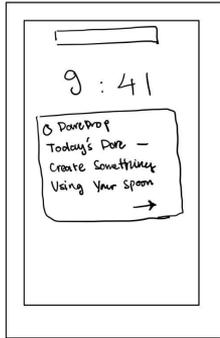
Completion + Celebration:
App rewards users



AR Social Scene:
Avatars of Friends In Your
location Who Completed The Challenge

Sketching explorations: 2 further fleshed out realizations

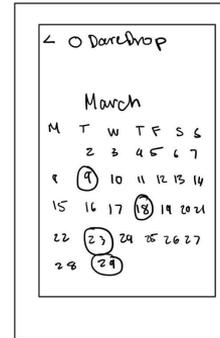
Mobile: Streaks / Reward System



Complete Dare &
log Entry

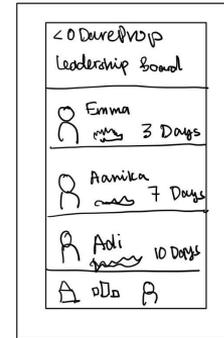


Reward / Milestone



History View
Reflection + Growth

Mobile: Streaks / Reward System



Social Layer

Comparing Final Two Realizations



AR Dare Locations

Dares appear as **AR markers** superimposed over physical surroundings – users complete them at real locations.

| Mindfulness + creative exploration in the physical world Could partner with local spaces | High activation energy Excludes users in unsafe/ inaccessible areas Can drain battery/data |
|--|---|



Mobile History/Reward System

Mobile app uses **streaks and creative history** to sustain engagement and track progress over time.

| Low-effort, accessible anytime and anywhere Aligns w/ DareDrop's goal of making creativity an everyday habit Positive reinforcement | Risks shifting motivation from intrinsic to extrinsic Users may disengage after losing a streak |
|---|---|

Comparing Final Two Realizations



AR Dare Locations

Dares appear as **AR markers** superimposed over physical surroundings – users complete them at real locations.



Mobile History/Reward System

Mobile app uses **streaks and creative history** to sustain engagement and track progress over time.

Remember:
Finance Bro + P.L.S.



“After work, I want something light and low-effort.”



“Creative pursuits are energizing, but it’s too overwhelming to start something new.”

Selected interface & rationale

Insight: *Users crave low-barrier creative engagement – something simple, energizing, and easy to start after a long day.*

| | AR Dare Locations | Mobile History/Reward System |
|-------------------------|---|-------------------------------|
| Technical Load | Requires GPS, camera, and motion tracking | Simple mobile UI, lightweight |
| Cognitive Effort | High setup & physical effort | Quick, repeatable daily use |
| Accessibility | Limited by safety & mobility | Works anywhere, anytime |

We Chose... 

Mobile History/Reward System

Finding:

AR demands higher effort and physical movement – a mismatch for users seeking quick, everyday bursts of creativity.

Therefore:

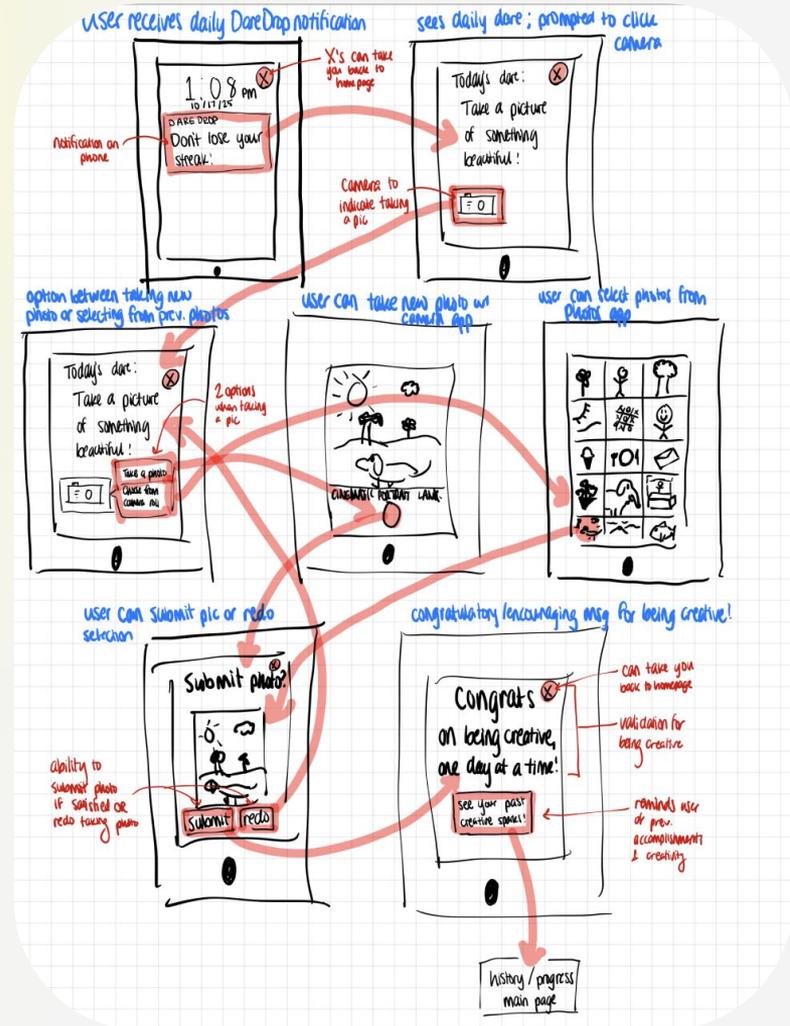
Mobile History/Reward System fits DareDrop's mission to make creativity an everyday habit

Mobile app uses **streaks and creative history** to sustain engagement and track progress over time.

|  |  |
|--|--|
| <p>Low-effort, accessible anytime and anywhere</p> <p>Aligns w/ DareDrop's goal of making creativity an everyday habit</p> <p>Positive reinforcement to encourage identification as creative</p> | <p>Risks shifting motivation from intrinsic to extrinsic</p> <p>Users may disengage after losing a streak</p> |

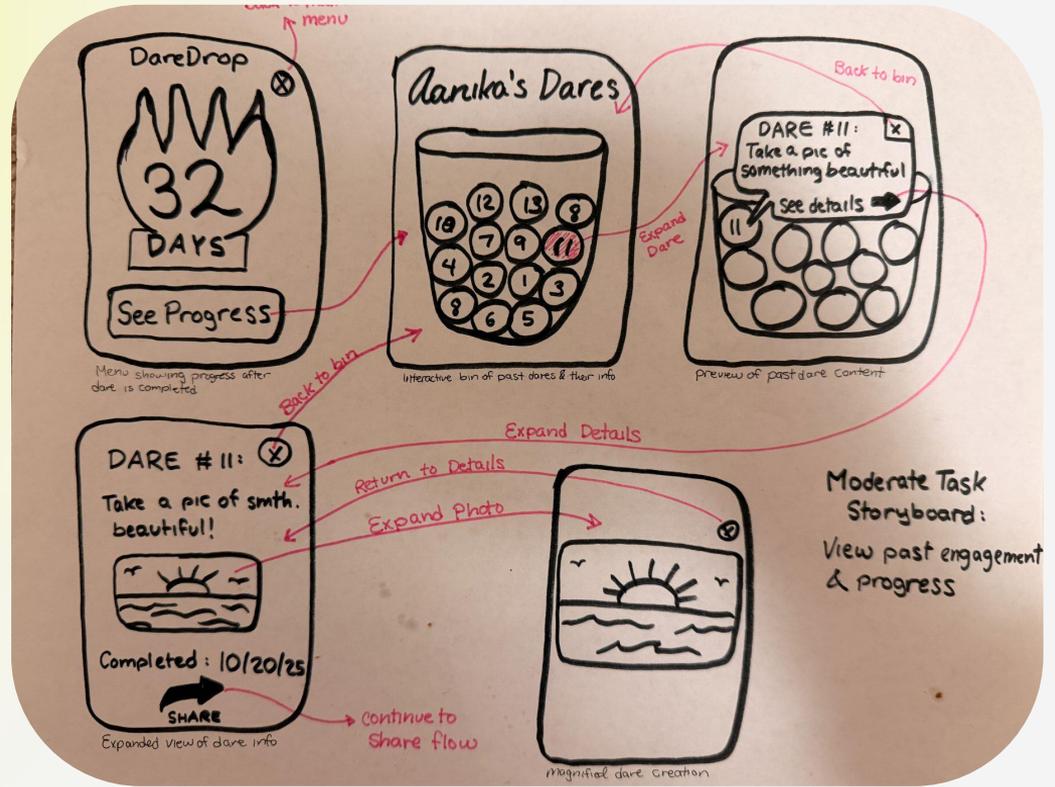
Simple Task Flow:

User completes a daily dare.



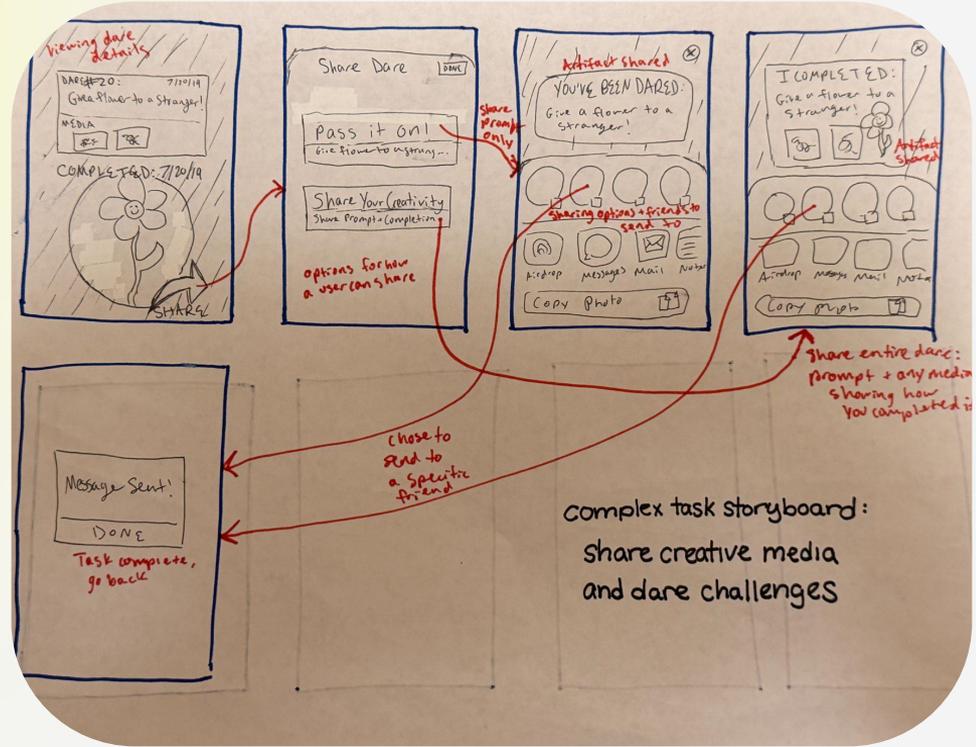
Moderate Task Flow:

User reviews
their past dares.



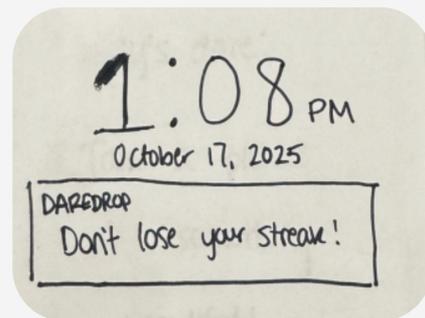
Complex Task Flow:

Users share creative engagement & pass on dares.



Low-fi Prototype: Construction

- Paper prototype to simulate phone screen
- Operation:
 - ◆ User sits at table with “phone screen” in front of them, instructions next to them
 - ◆ 2 team members organize & place paper components
- Decisions:
 - ◆ Visual **dare bucket**– show completed dares in a transparent way
 - ◆ Taking a **polaroid photo** to simulate real camera taking + submission



Environment & Procedure

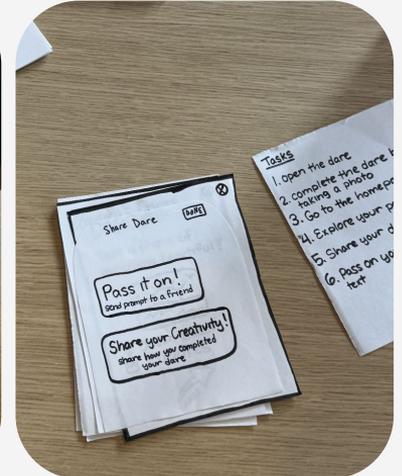
Environment

- Conducted in cafés and public spaces in Palo Alto for convenience to participants and recruiting
- Natural social settings that mirror how users might causally interact with DareDrop in real life

Apparatus

- Paper prototype showing the three main task flows
- Pens and sticky notes for interaction, labeling, and quick iteration
- Timer and phones for recording observations, task times, and key quotes

“Making a Paper Prototype” (Snyder)



Testing Participants



Tester 1

27 years old

PhD student at a nearby university

Recruited at Covour Coffee

Compensation: continued involvement in the project



Tester 2

22 years old

Recently graduated, Software Engineer in Palo Alto

Recruited at Covour Coffee

Compensation: continued involvement in the project



Tester 3

24 years old

Full-time researcher on campus

Recruited through mutual connections
Compensation: continued involvement in the project



Tester 4

26 years old

Recently graduated from law school, lawyer

Recruited through mutual connections
Compensation: continued involvement in the project

Team Member Roles



Test 1

Facilitator: Adi
Computer: Aanika
Notetaker: Nhu



Test 2

Facilitator: Adi
Computer: Aanika
Notetaker: Nhu



Test 3

Facilitator: Emma
Computer: Nhu
Notetaker: Aanika



Test 4

Facilitator: Emma
Computer: Aanika
Notetaker: Nhu

Usability Goals & Measurements

Goal 1 – Learnability

Objective: Users should quickly understand how to receive, complete, and view dares without help

Key Measurements

- **Time to complete first dare** → Target ≤ 60 s
- **Number of clarification questions asked** → Fewer = better learnability
- **% of tasks completed without assistance** → Goal ≥ 80 %
- **Observed confusion points** → Track terminology issues (“bin,” “past dares”)

Why it matters:

Ensures first-time users grasp DareDrop’s concept and navigation before visual polish or added features

Usability Goals & Measurements

Goal 2 – Efficiency & Satisfaction

Objective: Users can navigate, share, and review dares smoothly and find the experience enjoyable

Key Measurements

- Number of **navigation errors** or backtracks → Goal ≤ 2 per session
- **Time to share** a dare → Target ≤ 90 s
- **Positive sentiment** count → unprompted positive comments made during & after user test

Why it matters:

Measures how natural and rewarding the flow feels once the concept is understood

Process Data



“At first I wasn’t sure what the bin was, but after clicking through it made sense.”

“I don’t really understand the differences between the two shares buttons”



1. Early Confusion → Later Clarity

- Initial hesitation around “*Bin*” and “*Past Dares*” labels
- Once familiar, users navigated confidently

2. Clear, Logical Interaction Flow

- Tasks felt intuitive even with paper prototype

3. Mixed Understanding of Sharing

- Some asked if they could share others’ dares
- Flow itself worked smoothly once understood

4. Positive Emotional Response

- Frequent quotes: “Cool,” “Straightforward,” “Fun”

Bottom-line Data

| Goal | Metric | Result (Avg. Across 4 Users) | Interpretation |
|--------------------------------------|--------------------------------------|--|--|
| Learnability | Time to complete first dare | ~45 seconds | Within goal (≤ 60 s). Users quickly understood task flow. |
| | % tasks completed without assistance | 75% | Slightly below 80% goal — minor confusion with “Bin” and “Past Dares.” |
| | # of clarification questions | 1-2 per user | Most questions centered on terminology, not interaction. |
| Efficiency & Satisfaction | Time to share a dare | ~80-90 seconds | Within acceptable range (≤ 90 s). Smooth for most participants. |
| | Navigation errors | Low (1 total across all sessions) | Indicates clear and logical task flow. |
| | Post-test satisfaction | High (users described app as “cool,” “clear,” “fun.”) | Meets expectations. |

Observations

Learnability Curve

Participants started cautiously but grew noticeably more confident after the first task

Language & Labeling Heavily Influenced Comprehension

Small wording changes (“bin” vs “your dares”) caused major shifts in understanding.

Users Projected Social Meaning

Several participants connected DareDrop to familiar social apps (*BeReal*, *Locket*).



How Well We Achieved Our Usability Goals

Goal 1 – Learnability

Objective: Users should quickly understand how to receive, complete, and view dares without help

Results

- **Avg. time to complete first dare: ~30s** (*met $\leq 60s$ goal*)
- **75% completed tasks without assistance** (*slightly below 80% target*)
- **1–2 clarification questions** per user — mostly about wording (“Bin,” “Past Dares”)

Interpretation:

Users quickly grasped the main flow and concept. Minor terminology and visual confusion limited full goal achievement

Verdict: Mostly achieved → Improve copy & onboarding clarity

How Well We Achieved Our Usability Goals

Goal 2 – Efficiency & Satisfaction

Objective: Users should complete tasks smoothly and enjoyably

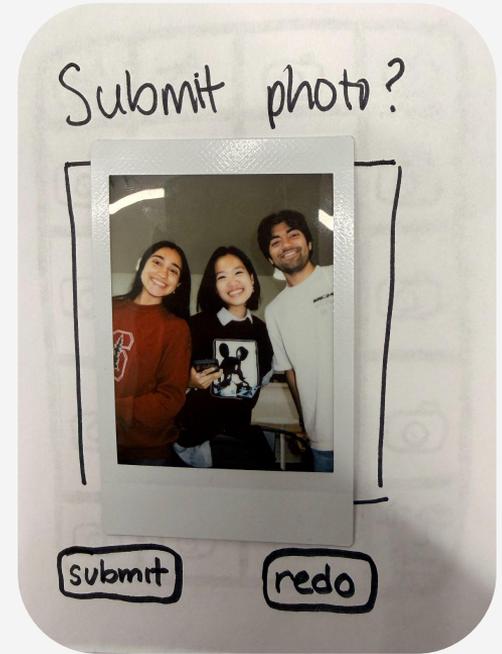
Results

- **Avg. time to share a dare: 80–90s** (*within $\leq 90s$ goal*)
- **Navigation errors: very low (1 total across all sessions)**
- **High satisfaction:** Users described app as “cool,” “clear,” “fun.”
 - A user even asked to keep her photo!

Interpretation:

Interactions were efficient and intuitive. Users found the app logical and enjoyable.

Verdict: Achieved → Maintain core flow and visual hierarchy, add more playful interactions



Discussion

Implications of Findings

- Users quickly understood DareDrop's concept once introduced
- Early confusion shows **language clarity drives usability and room for improvement**
- **Strong alignment with intrinsic motivation** for casual creativity based on reactions

What Testing Didn't Show

- Long-term engagement or motivation around streaks
- Reactions to **visual design, motion, or color** (since testing was paper-based)
- True **social behaviors** (how friends interact or share content)
- Edge cases like **notification fatigue** or daily streak loss

Design Changes

Onboarding

- Add a **guided first-time overlay** (“Tap to reveal your dare”) or short onboarding animation to orient new users.
- Add **progressive onboarding** only once per feature (avoid overwhelming first-time users).

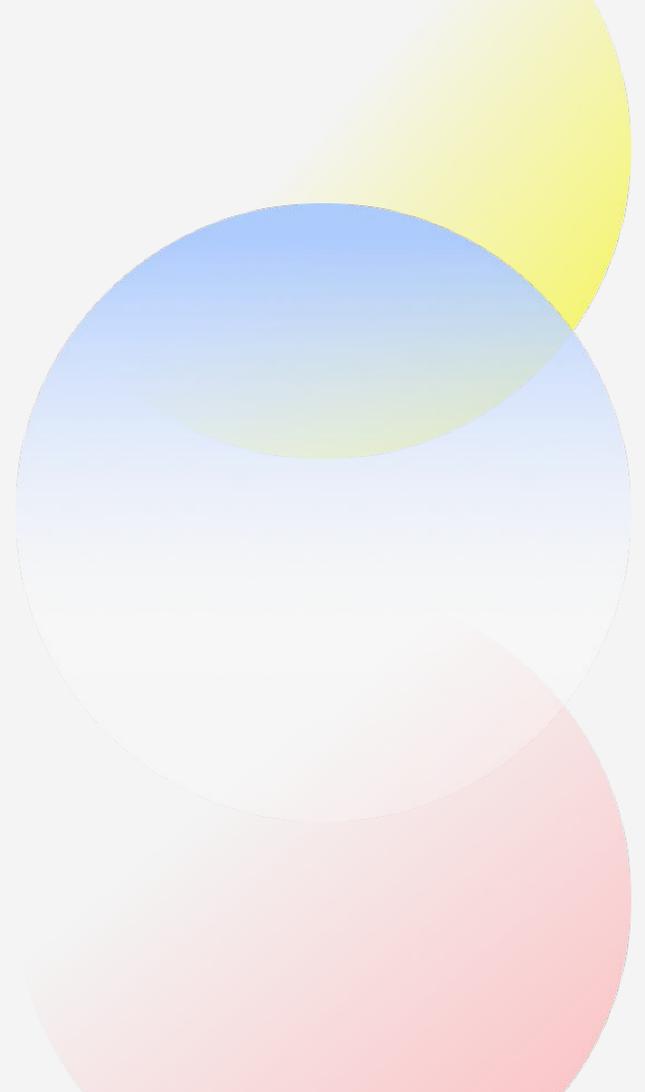
Past Dares

- Rename confusing terms → **“Past Dares”** or **“Dare Journal”**
- Merge redundant tabs (“Past Dares,” “Bin”) into a single accessible view.
- Introduce a **streak or timeline layout** to visualize progress over time.

Sharing

- Clarify **ownership**: “Share your dare” vs. “View shared dares.”
- Add **visual confirmation** (checkmark or mini pop-up: “Shared!”).

Appendix



Appendix

Full list of pros and cons for selected interface rationale

AR Dare Locations

| Pros | Cons |
|--|--|
| <ul style="list-style-type: none">• Encourages users to notice their surroundings and find inspiration in the physical world.• Could promote mindfulness and presence• Gets users outside or exploring new places• Could tie into partnerships with local businesses, museums, or parks | <ul style="list-style-type: none">• Not all users can safely or easily move through physical spaces (e.g., users with disabilities, rural areas, unsafe neighborhoods)• Looking through a camera/AR glasses while walking can lead to distraction or accidents• Battery drain and data usage may discourage daily participation• Demands higher activation energy - less likely to be used casually or daily• Requires complex technical maintenance |

Mobile Dare Streaks

| Pros | Cons |
|---|--|
| <ul style="list-style-type: none">• Reinforces DareDrop's mission to integrate creative play into everyday life• Help users track their creative journey over time• Positive reinforcement encourages users to identify as creative people• Can create community motivation and friendly competition | <ul style="list-style-type: none">• Could switch participation from intrinsic to extrinsic motivation• Can make creativity feel like a chore instead of an act of curiosity• Once users lose a long streak, they may abandon the app out of frustration• May unintentionally exclude those who can't commit to daily engagement |

Appendix: Test Script

Introduction

Hi! We're a group of Stanford students making DareDrop an app that encourages everyday creativity through playful dares. Thank you for helping us today! We'll go through a few screens that simulate different interaction flows. If you can, please think out loud as you go through each step. Share what you expect, what confuses you, or what feels intuitive

Simple Flow: Receiving and Completing a Dare (2–3 min)

Scenario Prompt

“You just received a DareDrop notification — let's see how you might respond.”

Task Steps (don't mention to users)

1. Receive a notification for a new dare. What would you do next?
2. Click on the notification to open the app
3. Read the dare that appears on the screen
4. Complete the dare (polaroid)
5. After completing the dare in real life, show how user would indicate that you've completed it in the app

Observation Goals

- Can users identify how to open the dare easily?
- Do they understand what the dare is asking them to do?
- Is it clear how to mark the dare as complete?

Appendix: Test Script

Task Steps (don't mention to users)

1. From the home screen, look at the streak/bin visual
2. Tap on the bin to expand and see your dares.
3. Choose one dare from the bin to open and view more details.
4. Click again to see any extra media or context (e.g., your photos or notes).

Observation Goals

- Do users understand the streak/bin visual metaphor?
- Can they navigate between levels of detail (overview → dare → media)?
- Are labels, icons, and affordances clear?

Appendix: Test Script

Complex Flow: Sharing a Dare

Task Steps (don't mention to users)

1. On any old dare, find the option to share.
2. Choose between sharing types: *'Pass it on'* or *'Share creativity.'*
3. Select a friend to send it to.
4. Confirm and send.

Observation Goals

- Do users locate the share option easily?
- Do they understand the difference between the two share types?
- Is the sharing process intuitive and rewarding?

Appendix: Test Script

Follow-Up Questions (if needed)

- “What does *‘Pass it on’* vs *‘Share creativity’* mean to you?”
- “Did you feel confident your dare was shared?”
- “What kind of feedback would you expect after sharing?”
- “What do you think the streak/bin visual means?”
- “Was it easy to find your old dares?”
- “What would you expect to do from here?”
- “Was it clear how to complete this dare?”
- “What would you expect to happen next after marking it as done?”

Wrap-Up

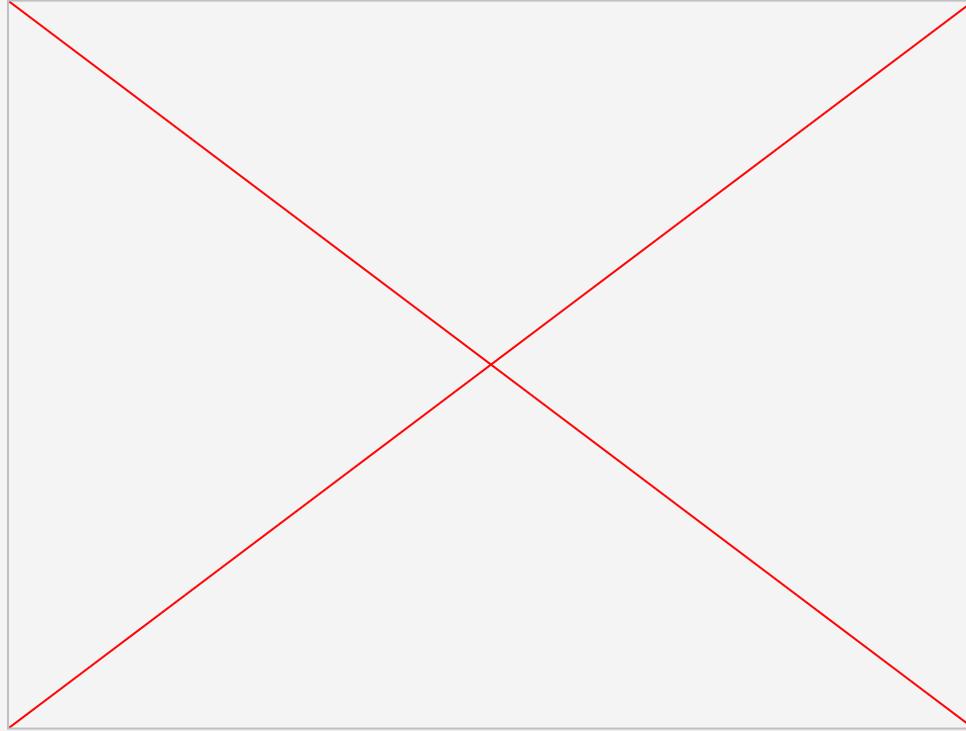
“That’s all for today, thank you! Based on your experience, what part of the app felt the most engaging or confusing? If we improved one thing, what would it be?”

Task List

Tasks

1. open the dare
2. complete the dare by taking a photo
3. Go to the homepage
4. Explore your past dares
5. Share your dare via text
6. Pass on your dare via text

Low-fi Prototype Walkthrough



Testing Checklist Summary

| Phase | Task | Success Criteria |
|--------------|---------------------|---|
| Simple | Complete a dare | User successfully opens, reads, and marks dare done |
| Moderate | Navigate streak/bin | User correctly interprets streak and navigates nested views |
| Complex | Share a dare | User correctly differentiates share types and completes send flow |

Appendix - Test 1

Scale: Minor, Moderate, Major, and Severe

| Incident | Severity | Key Quotes / Observations | Next Step |
|---|-----------------------|--|--|
| Confusion about "Bin" label and visual | Major | "At first I wasn't sure what the bin was, but after clicking through it made sense." / "I thought it was like a photo gallery." /It's hard to know these are my past dares/ "It would help if it said what it does." | Rename <i>Bin</i> "Your Streaks" or "Dare Journal." Add description text. Re-think visual cues |
| Misinterpreted chronological order | Moderate | "It would make more sense if it showed what I did over time." / "Could it show progress, like a timeline?" / "I wanted to see my dares in order." | Add streak or calendar visualization. |
| Overall impressions | No Problem (Positive) | "It's simple and visual, I like that." / "Feels kind of like BeReal but more creative." | Keep low-effort, social familiarity tone. |

Appendix - Test 2

Scale: Minor, Moderate, Major, and Severe

| Incident | Severity | Key Quotes / Observations | Next Step |
|---|-----------------------|--|---|
| Confusion between “ Past Dares ” and “Bin” | Major | “I don’t get the difference between these two.” / “They sound like the same thing.” / “Do I go here to see what I finished or what’s next?” / “That label is confusing.” | Merge into unified “Your Dares” screen. |
| Unclear sharing permissions | Moderate | “Can I share other people’s dares too?” / “I didn’t really understand the differences between the two share buttons.” / “It wasn’t clear who sees it.” | Simplify sharing choices, clarify ownership in wording. |
| General navigation uncertainty | Moderate | “I had to look twice to find where my old dares were.” / “Maybe this could be one clear tab.” | Strengthen navigation hierarchy. |
| Positive engagement | No Problem (Positive) | “It’s fun once you figure it out.” / “Feels casual, not overwhelming.” | Keep social playfulness in design, however room to make onboarding better |

Appendix - Test 3

Scale: Minor, Moderate, Major, and Severe

| Incident | Severity | Key Quotes / Observations | Next Step |
|--|--------------------------|---|---|
| Confusion about first screen layout | Major | "I can press wherever, right?" / "Wait, is this my phone's home screen?"/"I wasn't sure what I was supposed to tap on." | Add clearer visual hierarchy to distinguish notification pop-up from main task flow. Include a callout arrow or text cue ("Tap to reveal your dare"). |
| Smooth experience with sharing flow | Minor (Positive) | "Reminds me of Locket" | Preserve current sharing logic for high learnability. |
| No confusion after first screen | Minor (Positive) | "After that, it felt intuitive." | Maintain visual consistency; ensure onboarding transitions reduce initial confusion. |
| Positive engagement | No Problem (Positive) | "This would be fun to do with friends." | Retain tangible or visual elements in digital prototype for emotional engagement. |

Appendix - Test 4

d. Organized log of critical incidents from testing

Scale: Minor, Moderate, Major, and Severe

| Incident | Severity | Key Quotes / Observations | Next Step |
|--|-----------------------|---|---|
| Uncertainty about starting a dare | Moderate | "Can I just pick anything?"/Confusion at first | Make the notification clearer/room for onboarding experience |
| Positive perception of clarity | No problem (Positive) | "It made sense." / "Everything flowed nicely." | Maintain simplicity and consistency |
| Overall impression | No problem (Positive) | "It's a cool and straightforward app." / "It feels like something I'd check out for fun." | Incorporate minimalism with playful tone |
| Polaroid task simulation feedback | No Problem (Positive) | "Taking the Polaroid was fun" | Keep tangible or visual confirmation features in digital prototype. |

Low-fi Prototype: Design Goals

Consistent &
Aesthetic Design

use same look throughout to preserve style

Recognition > Recall

repeated icons to indicate same functionality

Customer Freedom

multiple paths to navigate through flow (photo taking/selecting)

Modified Screens



Old Screen:
Drawn default photo

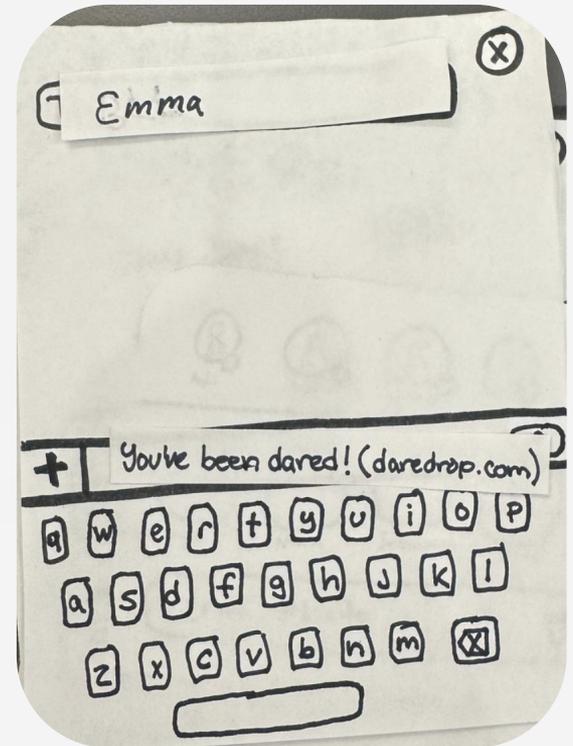


New Screen: Polaroid to simulate
interactive photo-taking

Modified Screens



Old Screen:
Share screen with pre-set
recipients



New Screen: Interactive share
interface to simulate genuine
interaction

Inclusion of Home Page

- All tasks accessible from central home screen (complete dare, see history, share through thumbnail image)
- Further improvements: re-label “your dares” bin to “past dares”, “dare history”, or other more intuitive label



Sketching Explorations

**Sketch report link (includes low-fi
prototype):**

https://drive.google.com/file/d/1CLNpJ-GtzpPTXbsam7WeyONPRBrOsC-T/view?usp=drive_link