TREASURE
PROCESS BOOK
LUIS GAMBOA-SIERRA

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We equally shared responsibilities for all phases. Nonetheless, I took a leadership role in visual design. Specifically, I designed all the visuals, created and refined the brand, and implemented a high-fidelity prototype for the application. Oliva was definitely involved with design as well, but she took more of a leadership role with behavioral change research.

LUIS
GAMBOA
UX Designer

OLIVIA
THOM
UX Designer

PROCESS & PROJECT OVERVIEW

The journey begins

This project was developed over a period of 7 weeks. The area of focus for the project was around behavioral change and the implementation of gamification elements to foster human connection through collaboration. Our target users for this project are smarthphone users who spend time socially with friends and family. Our goal is to provide an application that encourages and promotes human connection by engaging in collaborative games with friends and family.

DISCOVER   **DEFINE**   **DEVELOP**   **DELIVER**

PROBLEM

RESEARCH, ANALYZE, SYNTHESIZE

DEFINITION

PROTOTYPE, TEST, REFINE

SOLUTION
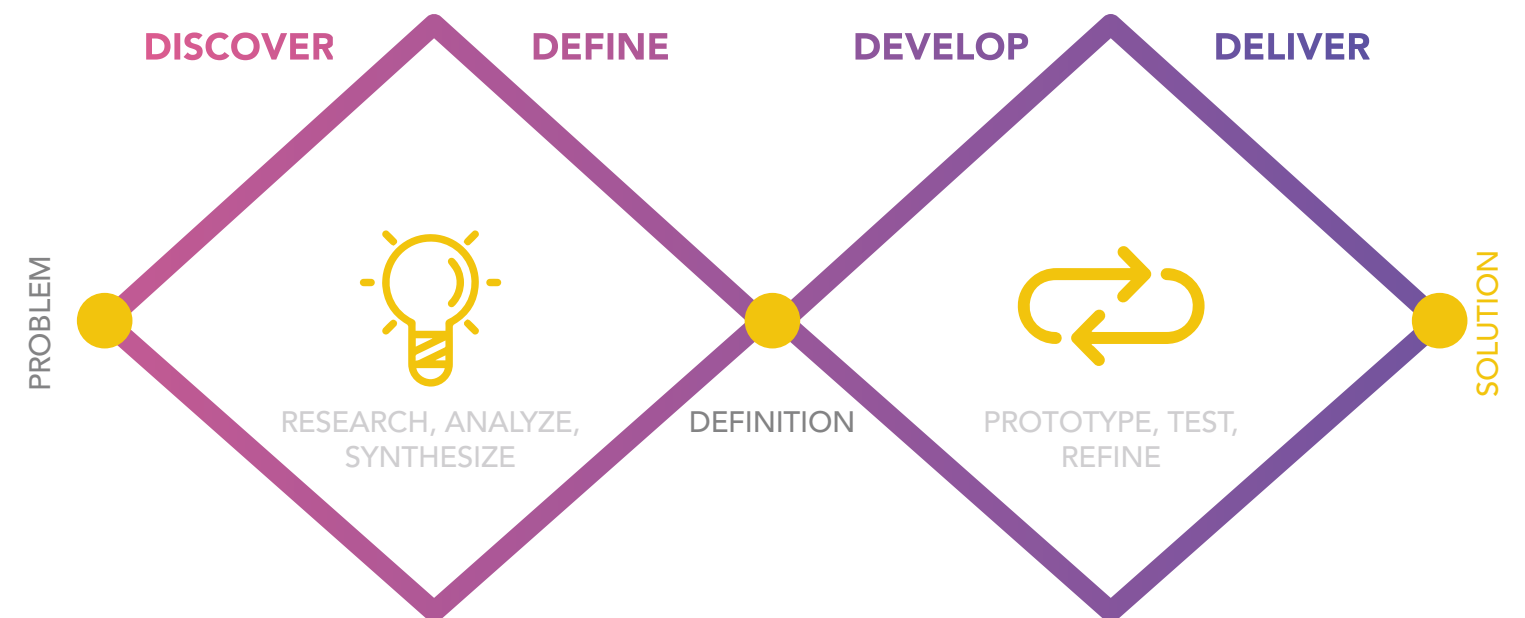
RESEARCH

Our insights

The starting point of the project was secondary research, competitive analysis, and a survey. This allowed us to understand the space problem we wanted to explore and to empathize with our target user. We needed to understand the physical, mental, and social implications of changes in interaction between people created by smartphone use. First, we focused our research in understanding what the specific motivations were that enhance human connection. We decided to stimulate human connection by leveraging the power of technology, instead of removing it. By using smartphones to foster play and collaboration, the game will build closer connections between friends and families in the real world.

Second, the game research and survey provided us insightful statistics. Particularly, we analyzed users who enjoy social or collaborative games: 46% have a particular preference for casual/social games; 31% have a preference for puzzle or board games. This helped us identify the type of game that we needed to develop in order to foster behavioral change in human connection.

Game Preference

● 46% Casual/Social
● 31% Puzzle/Board
● 23% Others

Source: EA
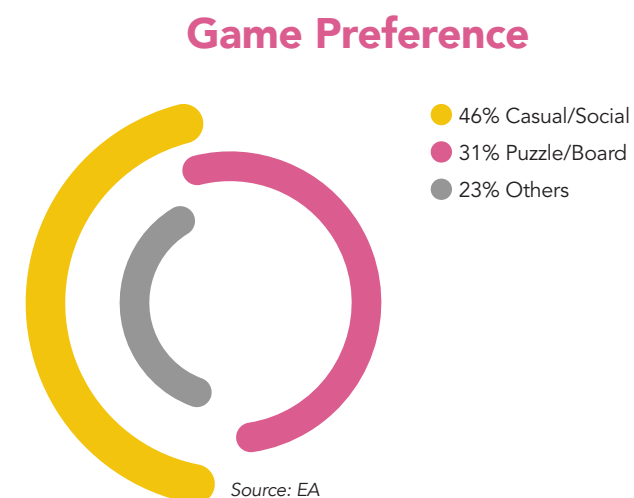
Competitive analysis

Third, we used the information gathered from our competitive analysis to categorize each application by using a 2x2 matrix. This distribution is based on the different features each application offers. The four parameters (collaborative, individual, smarthphone immersive, and real-world immersive) allowed us to visualize the focus area for our application, a collaborative and real-world immersive type of game.


Collaborative

Smarthphone Immersive

Real-world Immersive

Individual

Popular media scan

The popular media scan provided us with a broader view of how the use of smarthphones has either a positive or negative impact on human interaction. Most graphics identified an alarming level of dependency in how smarthphones are being used, and they clearly reference the disconnection created among friends or family.

"Consumer technology is good. It enables us to connect in amazing ways as humans. It is not replacing real interaction. It is augmenting it. Embrace it [1]."
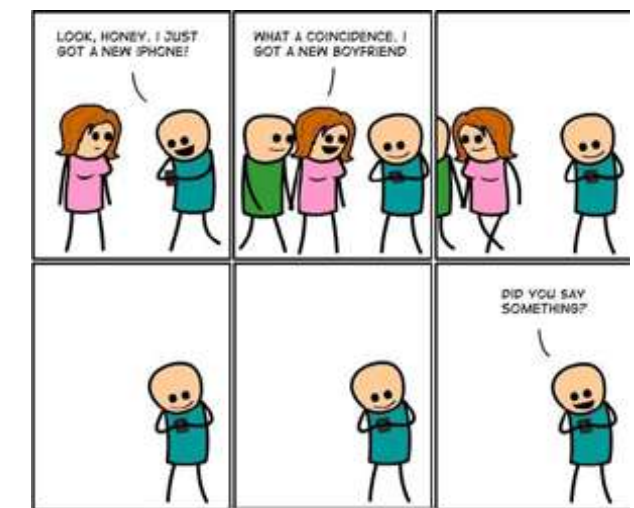
[1] Carral, H. L. (n.d.). Stop Saying Technology Is Causing Social Isolation. Retrieved November 03, 2016,

IDEATION

Artefact card

We decided to use this tool to iterate the idea of how to encourage positive behavioral change in human connection. We used it as a way to extract ideas and organize them into logical elements that could be used to build our application.

🟢 How might we emphasize gains of social engagement?
🟡 Call attention to gains of which users aren't aware?
🔵 Existing choices

collaboration
-friends
-family

-Being on phone leads bad health? How to make a positive spin?...

connection to thrive

HEALTH
-Personal
-Mental
-Public

immersive world

LOWER
-Obesity & high blood pr...
-Anxiety & depression
-Higher self esteem

Sense of accomplishment by solving puzzle challenges together

-Positive feedback loop
-Live longer
-Oxytocin
*strenght inmune s...

deeper friendship to network of ppl around you

-Our bodies think phones create a physical connection with others

ysical wellbeing

-Succesful networking better success in career

BEHAVIOR CHANGE

Wired for social connection
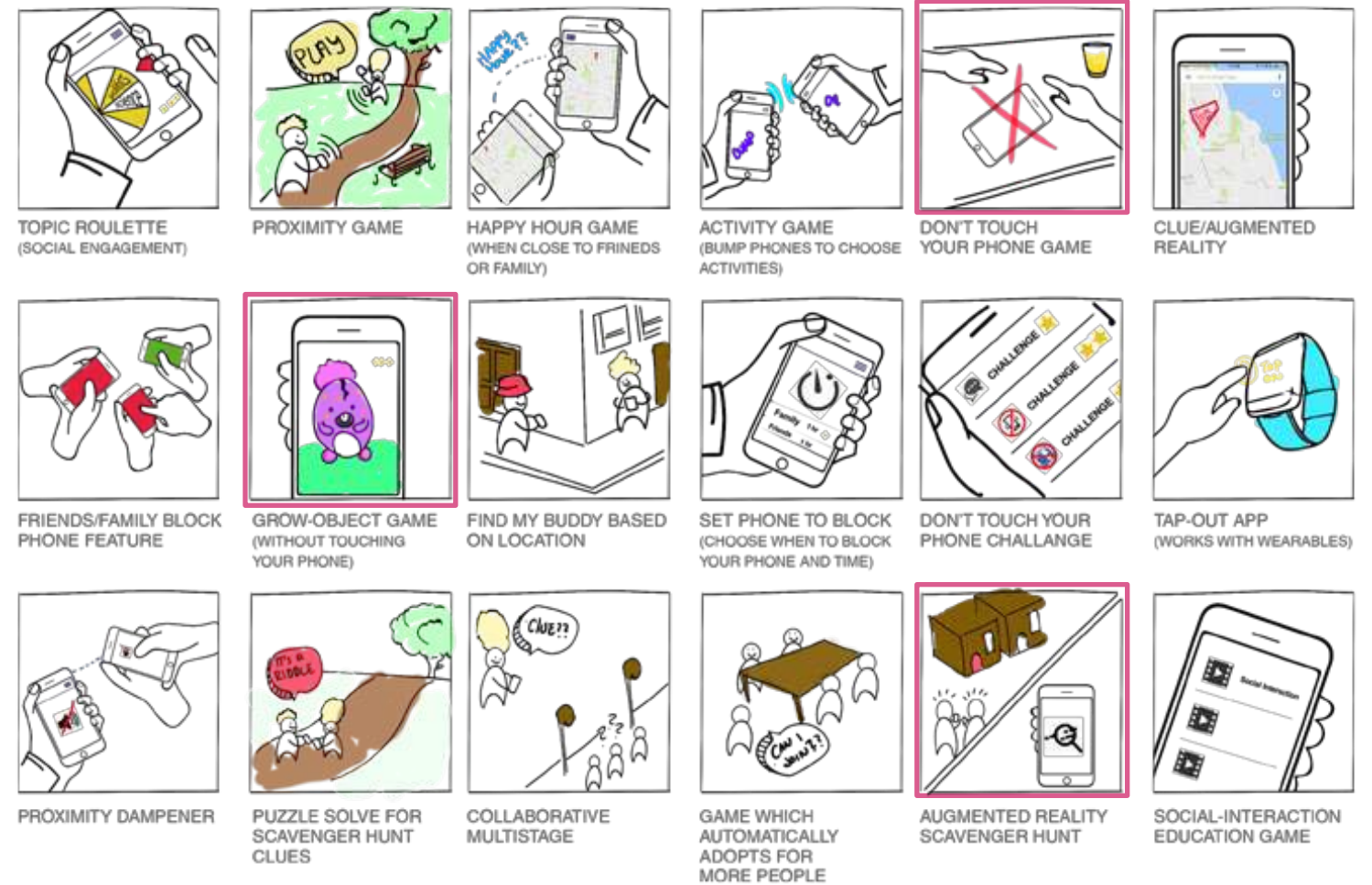
Mind map

Moodboard

Our moodboard can be described in two words: "**Magical Exploration.**" We were looking for an experience that could amaze each player. The idea of having fun and experiencing togetherness are values that needed to be reflected in our game.

Thumbnail sketches

Drawing the thumbnails was not only fun, but it showed us which areas were clear and those that needed more discussion and refinement. This process helped us weed out the unrealistic concepts from those that were feasible.

● Most interesting concepts

| TOPIC ROULETTE (SOCIAL ENGAGEMENT) | PROXIMITY GAME | HAPPY HOUR GAME (WHEN CLOSE TO FRINEDS OR FAMILY) | ACTIVITY GAME (BUMP PHONES TO CHOOSE ACTIVITIES) | DON'T TOUCH YOUR PHONE GAME | CLUE/AUGMENTED REALITY |

| FRIENDS/FAMILY BLOCK PHONE FEATURE | GROW-OBJECT GAME (WITHOUT TOUCHING YOUR PHONE) | FIND MY BUDDY BASED ON LOCATION | SET PHONE TO BLOCK (CHOOSE WHEN TO BLOCK YOUR PHONE AND TIME) | DON'T TOUCH YOUR PHONE CHALLANGE | TAP-OUT APP (WORKS WITH WEARABLES) |

| PROXIMITY DAMPENER | PUZZLE SOLVE FOR SCAVENGER HUNT CLUES | COLLABORATIVE MULTISTAGE | GAME WHICH AUTOMATICALLY ADOPTS FOR MORE PEOPLE | AUGMENTED REALITY SCAVENGER HUNT | SOCIAL-INTERACTION EDUCATION GAME |

Narrowing our concept

After comparing PROS and CONS from each, we determined the most feasible concept. We first chose three divergent concepts that we thought were collaborative and real-world immersive, then narrowed it down to a single concept: an augmented reality treasure hunt game. The goal of the treasure hunt game was to increase interpersonal collaboration and play using smartphone technology for groups of friends to get out in the world together and solve puzzles together.
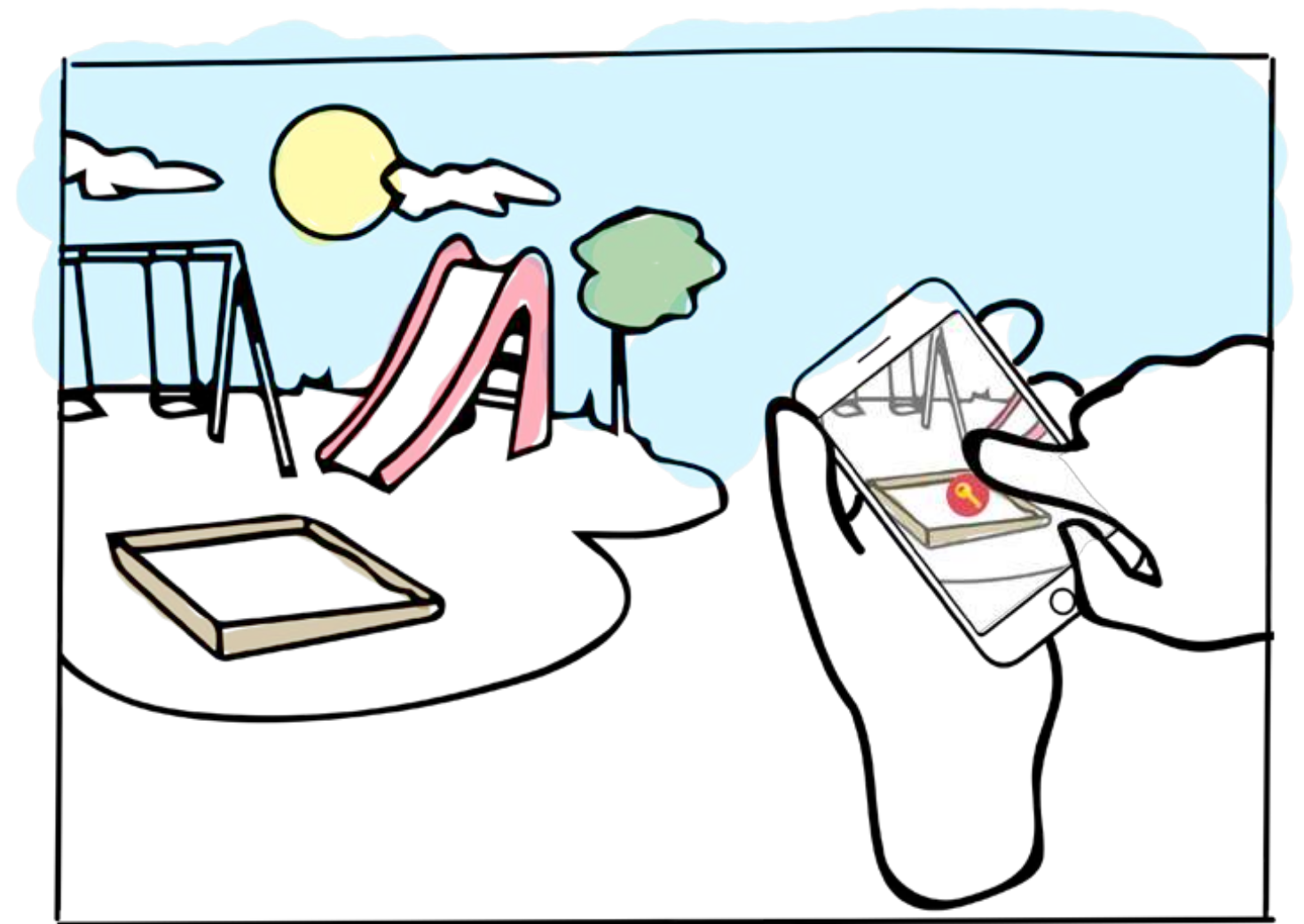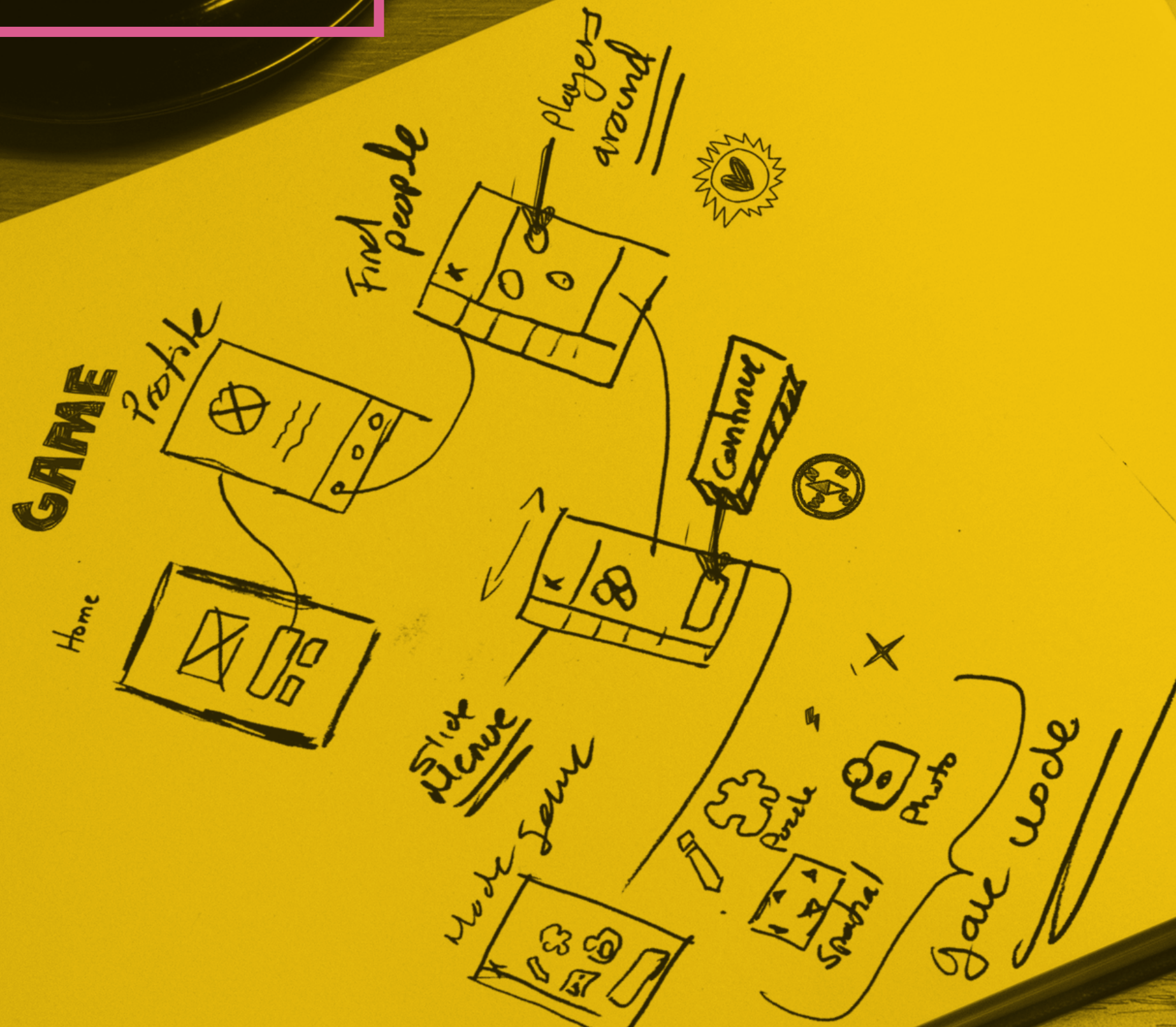
Storyboarding

We used a storyboard to create an AR interface scenario within the context of social interaction among friends, specifically showing how the AR interface would foster collaborative play and how smartphone technology would increase interaction.
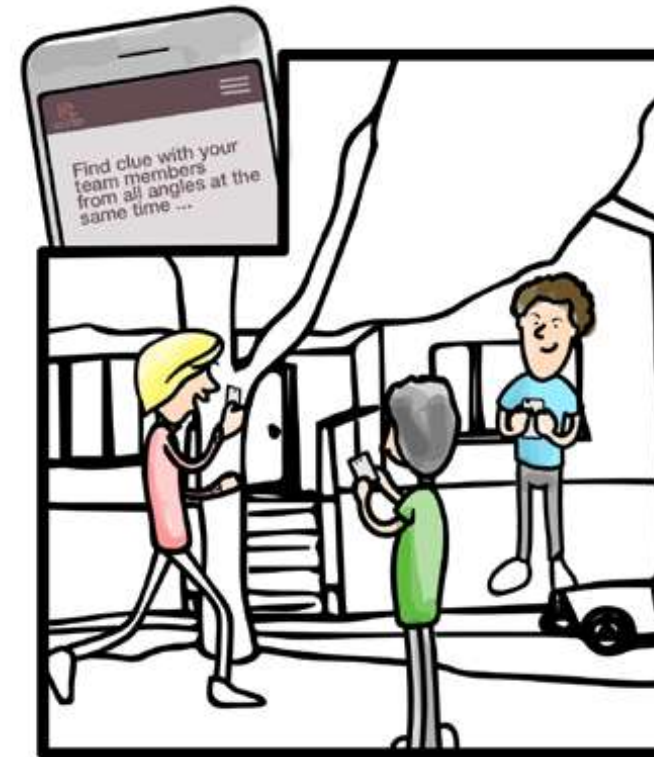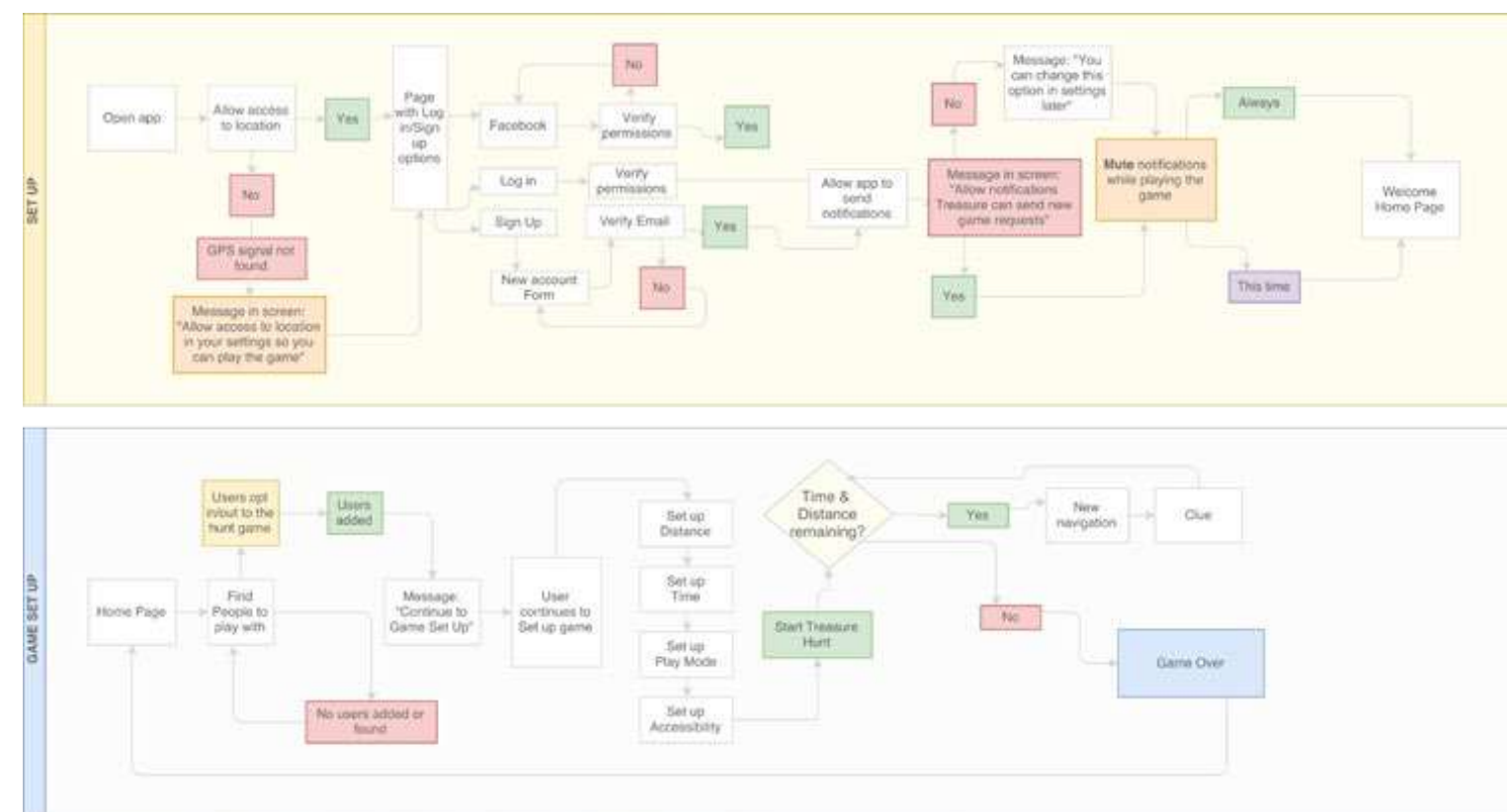
PROTOTYPE
& REFINEMENT

Concept
refinement

**TREASURE IS AN AUGMENTED
REALITY PUZZLE HUNT GAME.**

Its purpose is to foster human connection
among friends and family through
collaboration and play. Friends or family
form teams then wander and search for
clues to solve puzzles in the real world. Each
clue requires teamwork and collaboration to
unlock the next phase.

User flow

We divided the interaction flow in two parts: (1) the login/setup process and (2) the game setup. First, the login/setup process will prompt users to login with different options (Facebook or Email). Second, the game setup section will demonstrate how users can create a new game and successfully start it with other friends. Also, the game setup section will ask users to allow the application to "mute" their notifications. This could be asked only one time or every time, the users could change it anytime while playing the game.
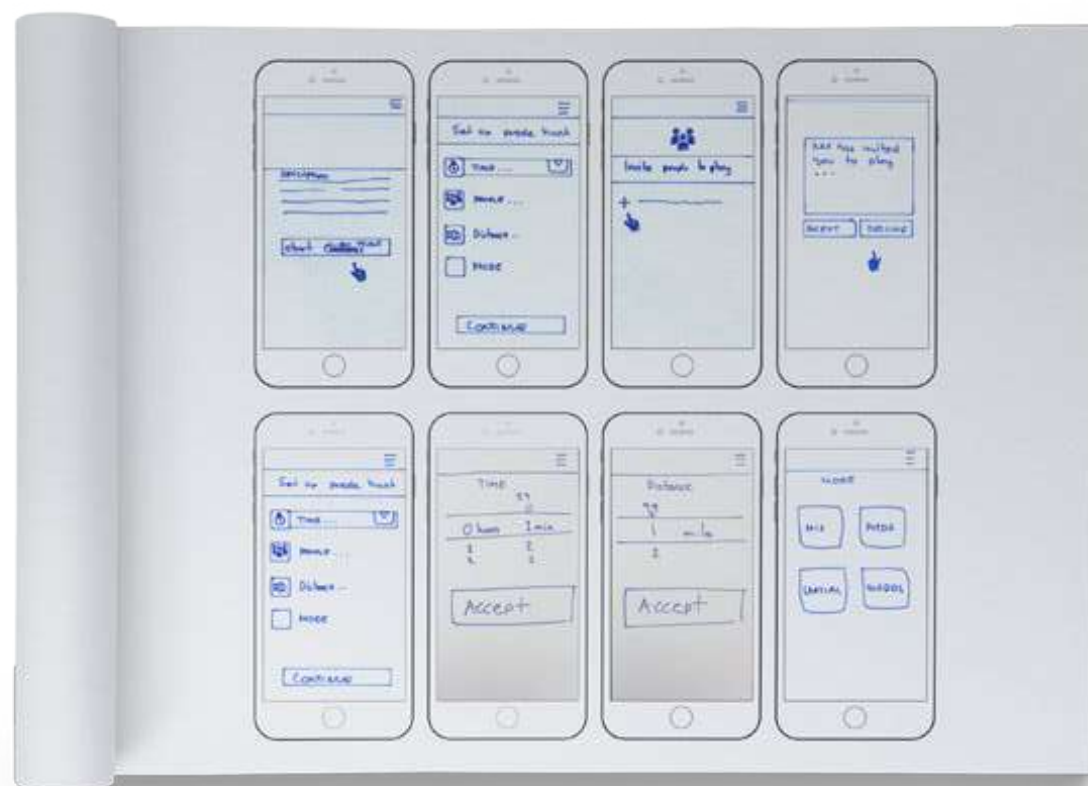
Paper prototype

Once we established the user flow for our AR game, we then sketched different screens to understand the flow of the application. This helped us identify missing elements within the application. We repeated this various times to conceptualize how the application was able, via collaboration, to enhance human connection with friends and family.
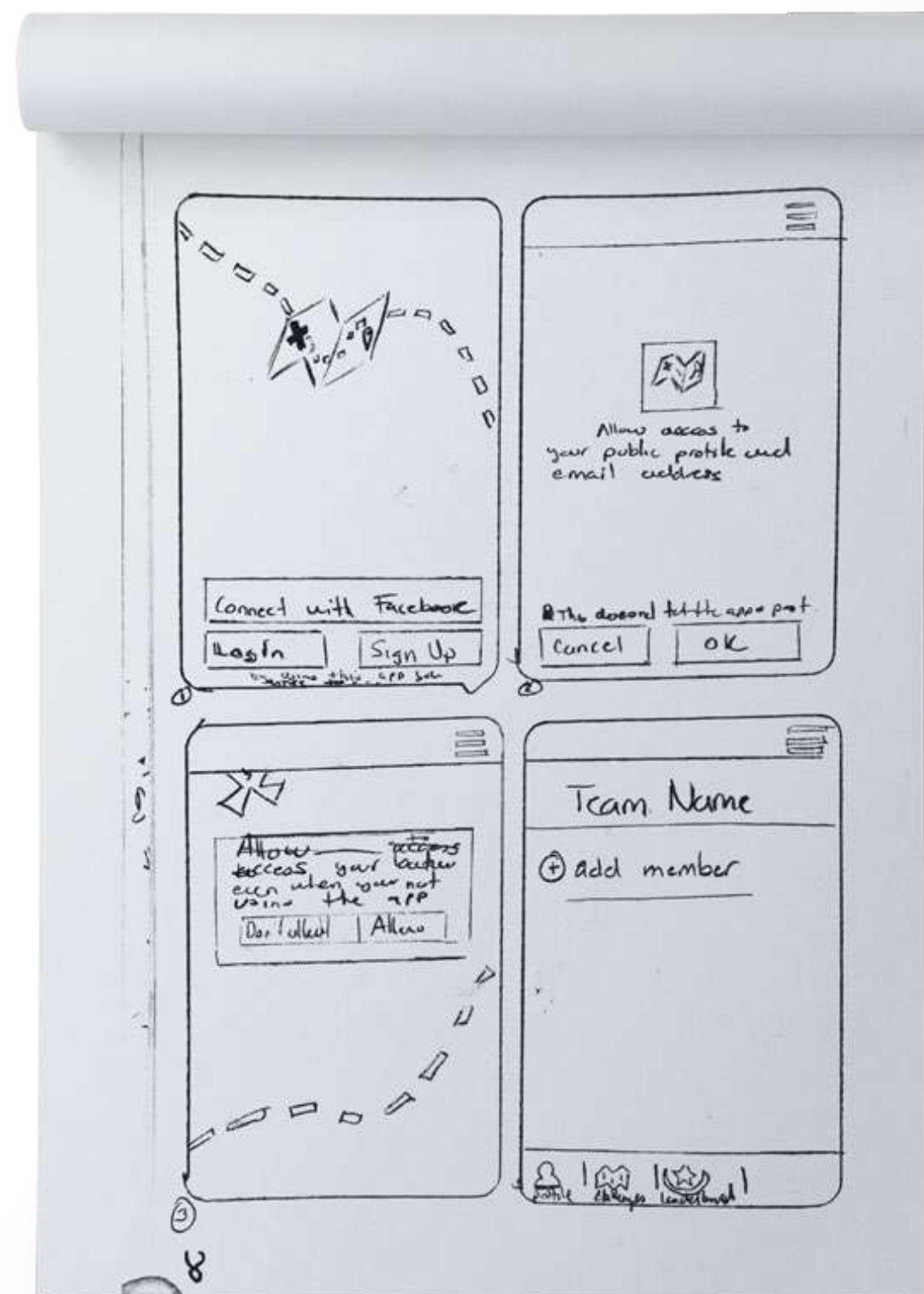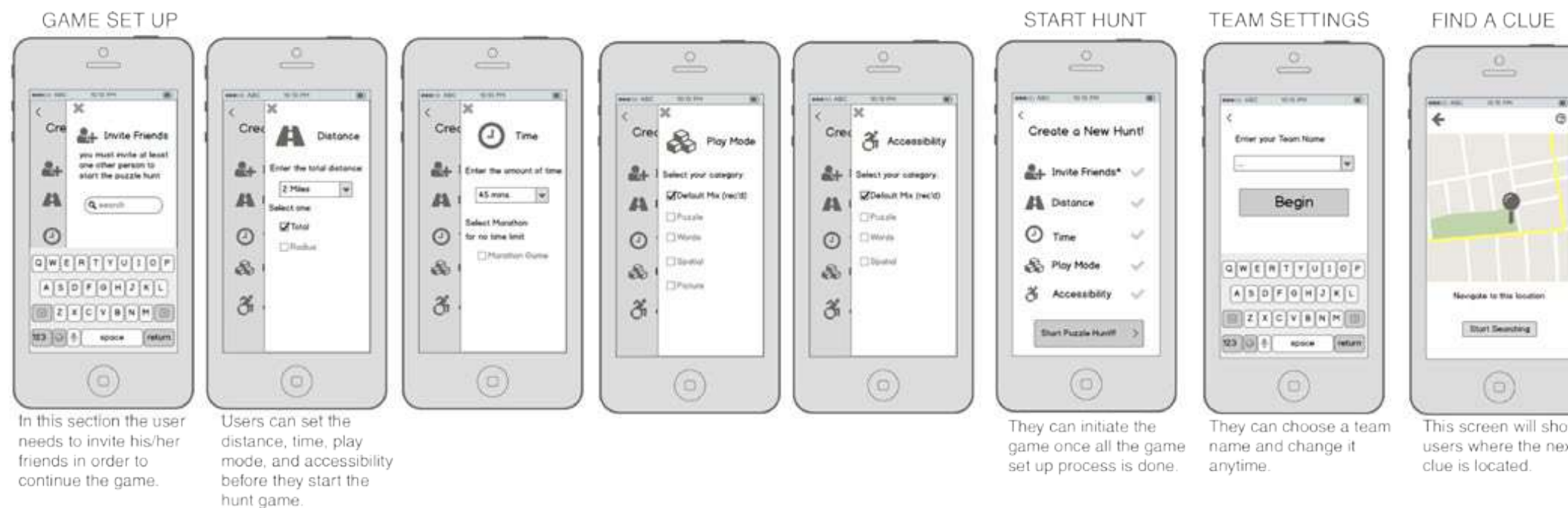
Paper prototype

We kept sketching and iterating with various interfaces of the AR game app.

Wireframes

Our iteration process after the paper prototype phase allowed us to conceptualize the main screens and features contained within the game mode. We created a digital wireframe version of the game, adding basic features and integrating interactions that allowed us to test it. The feedback from this allowed us to test and build a high fidelity prototype of the application.

HOME PAGE — The home page will allow users to start a game or access game's information.

PROFILE — The profile page will display scorce, games layed, and circle of friends.

START HUNT — For this section users can select different specifcs of the hunt game.

TEAM SCORE — Users can access information and score from previous games.

GAME SET UP — In this section the user needs to invite his/her friends in order to continue the game.

Users can set the distance, time, play mode, and accessibility before they start the hunt game.

START HUNT — They can initiate the game once all the game set up process is done.

TEAM SETTINGS — They can choose a team name and change it anytime.

FIND A CLUE — This screen will show users where the next clue is located.

Role playing

We focused on foster collaboration, specifically helping players avoid phone use while playing. We used the role play method to empathize with our target user and to understand how the AR game would enhance human connection. First, the navigational system needed to be simple to enhance the collaborative navigation experience for the whole group. Instead of giving the players a map like they are used to seeing when navigating, we instead settled on rudimentary distances and compass directions to get them from one place to the other.

Role playing

The second insight from this was the illumination of distance and mode for letting people know when they were approaching a turn, as well as the change in leader from one player to another. We explored a series of haptic feedback messages that could be understood without the player having to look at their phones, as well as different interfaces on the phone itself.

Game play scenario

After we conceptualized some game specifications, we asked a few students to mimic playing the game. They were instructed on the premise of the game, and they mimicked group interaction for different phases. We took pictures of this interaction.
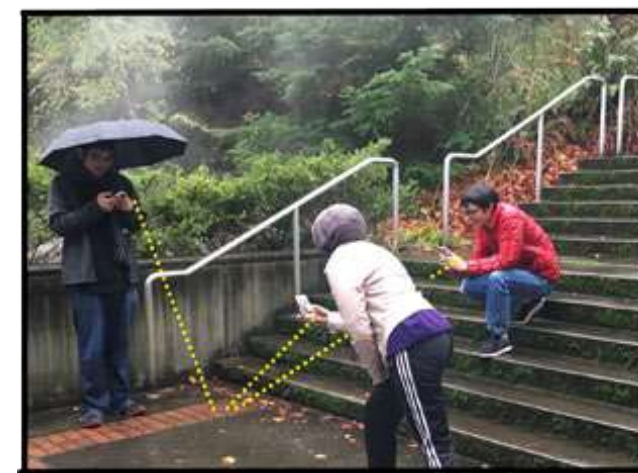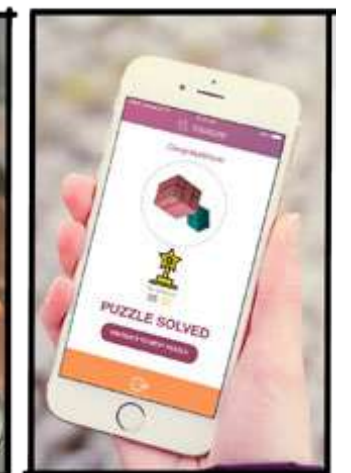

Each player will point their phone at the augmented reality clue from different angles.

Once everyone is in the correct position, the clue will be unlocked.

Players will be able to see the augmented reality clue in their devices

After the puzzle is solved, they will be promted to move on to the next puzzle.

Puzzle is solved, and it's time to find the next one!

Individual legs of the journey will be shown to individual players

Navigation will change to a new person once you reach GPS locations along the route. You have to work together to find the way to the next puzzle.

Players may keep their phones locked while traveling, and be alerted by buzzing when they are approaching an area they need to make a turn at.

Usability testing

At this point, we were ready to test the functionality of our application. The main usability issue we addressed was the success or failure of the information architecture and navigational user pathways.

📝 FINDINGS

We asked 10 participants to test the beta version of our application. We identified some unclear sections, like labels, information architecture, and icons/graphics. We determined that users were getting stuck in some sections because they were unaware of what was next or how to save it, specifically their experience with the navigational section of the game.
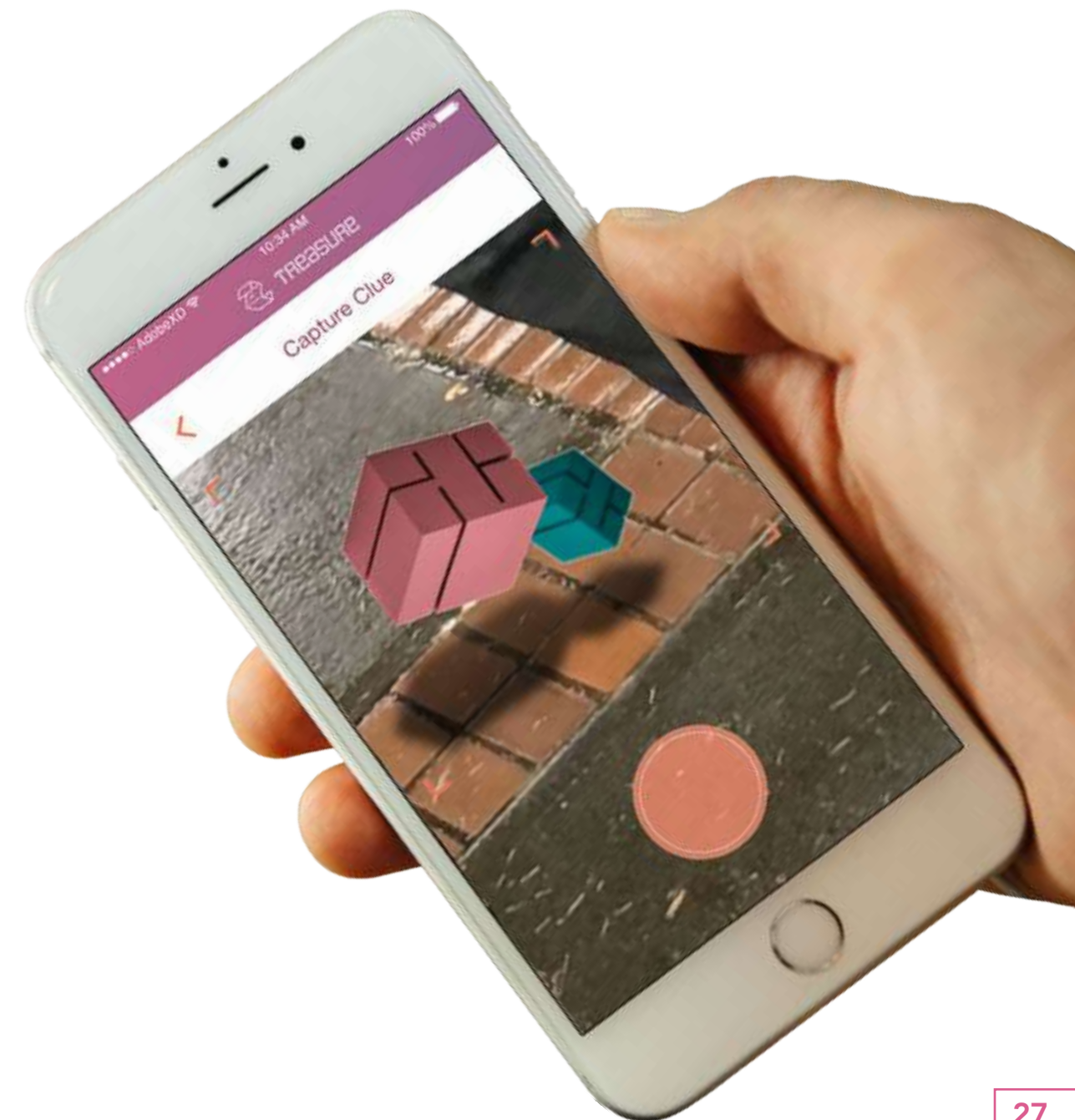
HI-FI UI
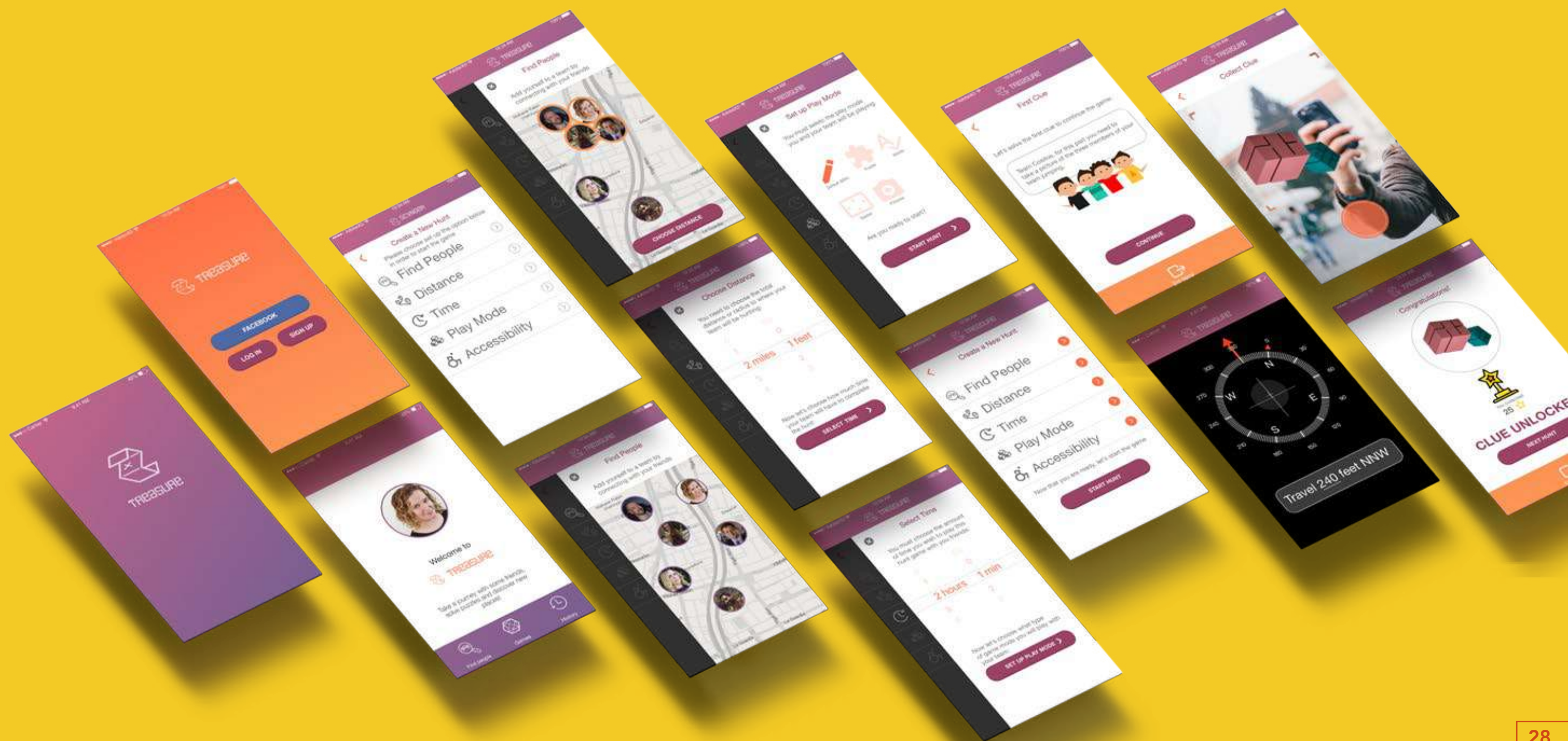
CONCLUSION

In the end, we became more familiar with different research and ideation methods that helped us create a well-designed product fostering behavioral change and human connection. If we had more time, we would connect with an augmented reality developer or engineer to understand what is possible and what can be integrated as part of the augmented reality system. The next step will be developing of a functional beta version. This will allow us to conduct a better usability test and make improvements all around.