



Design Studio #1

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Global Design Decisions

Design Goals: Deter children from spending copious amounts of time in front of a visual display/screen while incentivizing the alternative of spending time with friends outside in the real world (get kids away from the screen and play outside safely).

Audiences: Parents, Children aging from 7 to 13

Additional Stakeholders: RealPlay Company, Administrators from RealPlay, Caretakers of Children, Teachers

Constraints:

- Making it usable on different platforms such as laptop, mobile, tablet etc, as well as for different operating-based platforms such as Windows, iOS, Android etc.
- Enabling easy use of the interface for different levels of technical proficiencies
- Accessibility in multiple languages such as English, Chinese, Spanish, Hindi etc.
 - Users will only be able to interact with other users of the same language
- Maintaining a level of security by accounting for bot accounts, predators and inappropriate users/content
- Connections are based on common interests, locations and other factors.
- Users who create a new account should use their ID number for checking the identity.
- Users tend to have privacy issues due to sharing photos of their children or themselves on an online platform

Assumptions:

- Child won't use the app after the age of 13
- Users have access to data/internet
- Users have smartphone that has location and GPS capabilities
- Users will be willing to meet in person
- Users are willing to share personal information to a certain degree
- Parents will use the app in presence of the child and the child will not make use of the app without parental supervision
- Parents are aware of the interests of the child which are to be entered for the child's profile.

Design Approach 1: Matching via Swiping Left/Right

Design Description:

- Simplistic Approach where the parent, the child (with supervision) or both choose another child to play with a suggested outdoor activity, based on profile interests all properly displayed. It follows the standard of matching based applications: **Swiping Left means 'No' and Swiping Right means 'Yes'**
- Users each have a profile with the option to add photos of themselves, interests, and a brief biography. Users will have to enable their location.
- Users will be shown other users in a range of their choosing from 0-100 miles based on their current location.
- When using the app users will be shown one other user in their location range and will be able to see the others users profile (pictures, interests, and biography). If the user like the person they are shown they will swipe right and if they don't swipe right. If two users both like/swipe right on each other they will be matched and they will be able to message each other to arrange a meet up.
- Application allows user to possibly unmatched with another user and also allows reporting for bullying and inappropriate content.
- Recommend children with same interests.
- Security is accounted by making use of a multi-step process of verification through email, hand gestures.



Constraints:

- User may not want to be shown to other users in the specified area

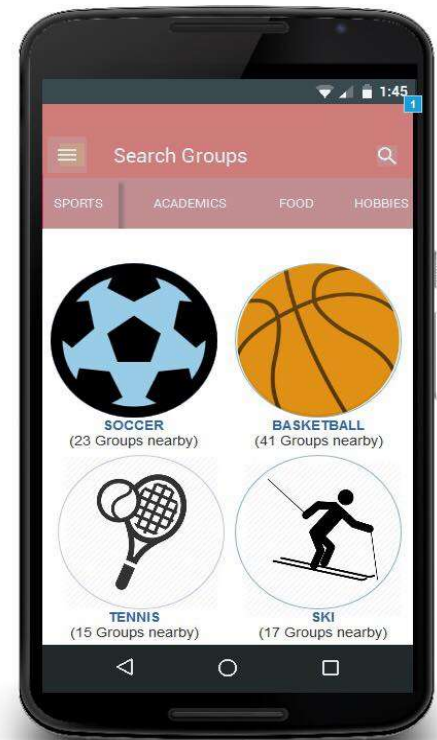
Assumptions:

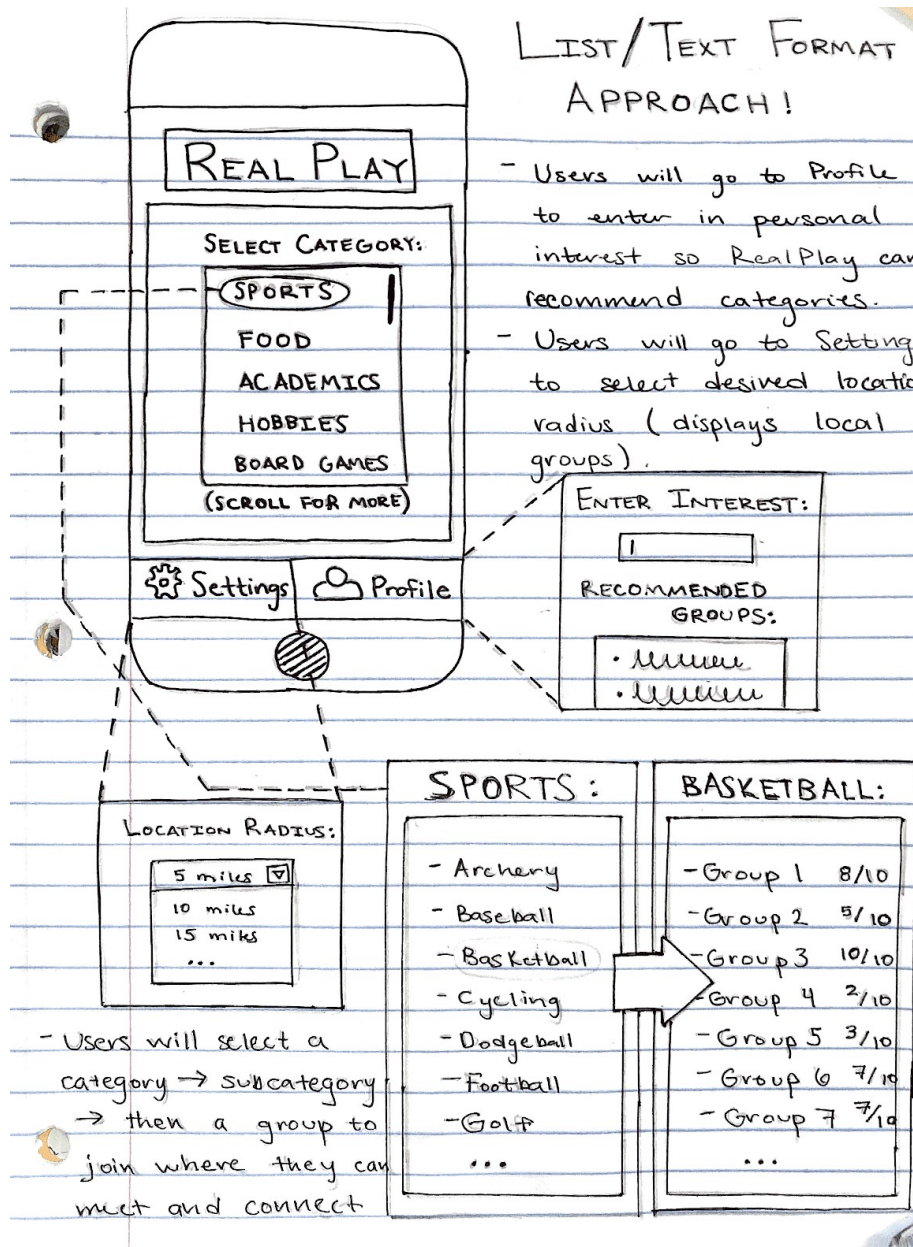
- Users have the universal understanding of common matching application interaction styles (swipe right = yes, swipe left = no)

Design Approach 2: Posting joinable groups in list format (divided by categories)

Design Description:

- Having a list of general categories for users to select (sports, food, board games, hobbies, academics, etc.)
- Each general category will have sub categories for users to join in order to meet other users (i.e. sports category is divided up into basketball, tennis, soccer, football, etc.)
- Within each sub category there will be multiple joinable local groups ranging from sizes of 10 to 15 members (i.e. multiple small basketball groups that users can join; this avoids large groups that will inevitably become hectic and hard to organize).
- Available local groups shown will be based on user radius preference from their current location (5 miles, 10 miles, 15 miles, etc.)
- Users must create and enter their interests for the system to recommend them categories. Recommended categories will align with user personal interests.
- Within each group, there resides a messaging chat and calendar feature/poll that can organize a time so that the majority of users within that group can participate and attend.
- Each group will have administrators (staff from the RealPlay company) that will regulate the group to assure that there is no abusive use of the system. (i.e. admins will filter out and block explicit content).
- To ensure an additional level of security, new users must be verified to join groups. In order to get verified, users must submit photos with unique hand gestures at the request of the application (hand gestures are chosen at random). System admins will then proceed to analyze the legitimacy of each image to ensure safety for all users.





Constraints:

- Once a group size has reached its limit, no additional user may join (must request RealPlay admin to expand group size)

Assumptions:

- RealPlay will be able to cover all potential categories so that every user will have a group they can join and find interest in

Design Approach 3: Reward System with Map Configuration (MAIN APPROACH)

Summary:

This approach is a parallel of the Pokemon Go interaction style where users are shown a map of their current location and an icon shows where they are currently are. On the map other icons will be shown which represents PlayStops which are public spaces where users can physically go to redeem points and meet other users. We choose this approach due to the greater opportunity of incentive offered by this approach.

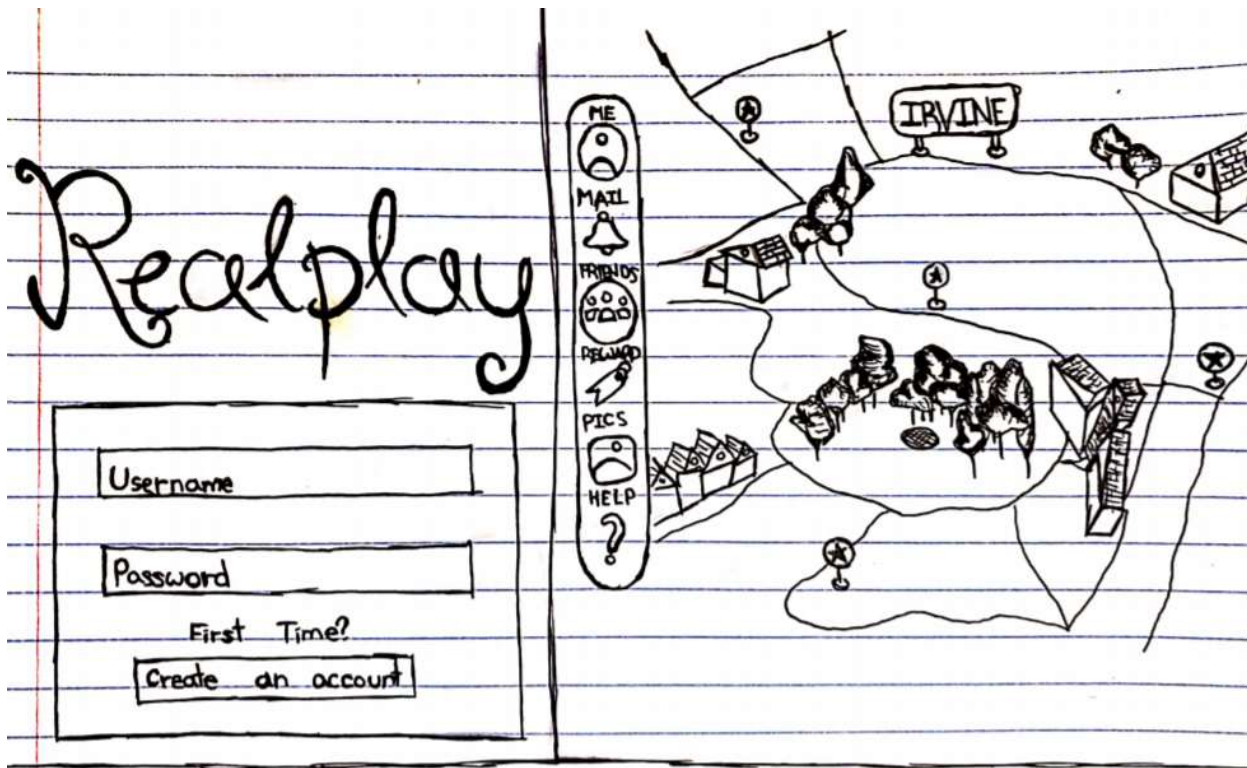
Why is this our main approach?

This approach also has a greater connect with the real world with the map configuration as compared to the other two approaches. Due to greater connect with the real world, the approach makes use of recognition overall recall, i.e. the child doesn't need to remember where PlayStops are and there are visual indicators which help out the user to easily use the system.

Action Sequence for Application:

1. When opening the app for the first time users will see a screen where have to create an account using their email and create a password. There is also an option to sign in if they already have an account
2. Users will be able to customize their profile by adding photos of themselves, their interests, and a brief biography
3. To verify themselves the user must send a picture of themselves doing a unique hand gesture generated by our app which will be compared to the pictures they uploaded using facial recognition software
4. Once the user has set up their account the app will display a map that fills the entire screen. This map will be the default from now on every time the user opens up the app
5. On the map there will be a small red marker which represents the user's current location, and blue markers which represent PlayStops
6. The user can explore the map by using their finger to swipe the screen which will help them traverse the map
7. When a user is in the vicinity off a PlayStop reward points will be automatically added to their account, if their PlayStop rewards is not on cooldown, which can be redeemed from gifts when they have enough
8. Once a user receives their points the user will be on cooldown which prevents the user from going to other PlayStops and receiving more points for 3 hours so that users don't go from PlayStop to PlayStop farming points
9. At a PlayStop users can swipe up from the bottom of their screen to see a list of other users currently as the same PlayStop as them
10. Users can click on individual users to view their profile and on other users profile there is a button labeled message which users can click to message the user they are viewing

11. To get back to the map the user simply just needs to swipe down on the list
12. While on the map users can swift right from the left edge to view their profile
13. If they click the gear button on the top right corner, they can edit their profile



Design Description:

- Users each have a profile with the option to add photos of themselves, interests, and a brief biography
- Users will have to enable their location on their mobile device
- When opening the app, the user will be shown a map + UI, and a marker (red) will indicate the users' current location
- Other markers (blue) will be also shown on the map which indicates PlayStops where users can go to meet other users and redeem points
- When a user is at a PlayStop they will gain points
- At a PlayStop users will be able to see a list of other users at their current PlayStop and view their profile/message them
- Users can redeem their points for rewards like gift cards
- PlayStops are public spaces like libraries or parks and will have a cooldown time so that users actually interact with other users and not just go from stop to stop to farm points
- For account verification users will have to send a picture of themselves doing a unique hand gesture generated by our app when signing up for the account

Design Assumptions

- Users device should be able to handle real time location
- Users will be motivated to go to different stops to meet people because of the reward system
 - Limited selection of rewards will appeal to users
- Users will actually interact with other users at the stops
- All PlayStops are already verified safe places
- Users aren't only motivated to use the app because of rewards but also want to meet new people

Design Constraints:

- Users will only be shown at PlayStops if they choose to
- Cooldown time for rewards at the PlayStops
- Making it easy to use
- Accounting for trespassing
- Balance reward system with goal of connecting children so reward system isn't main driving point of using app
- Make rewards obtainable (not too difficult or easy)

Comparison of Approaches			
Approaches (red rows represent the cons on the individual approach compared to the approach in the green column)	Approach 1: Matching through swiping	Approach 2: Posting joinable groups in list format (divided by categories)	Approach 3: Reward system with map configuration
Approach 1: Matching through swiping	Child makes use of universal swiping interaction styles to match with another child based on similar interests, locations and other factors.	<ul style="list-style-type: none"> - Approach 1 makes use of individual interactions as opposed to the group interactions offered by Approach 2 giving children more opportunities to form friendships - Approach 2 provides continuous supervision from RealPlay admins that regulate group chats while approach 1 will have unmonitored, private conversations that may lead to an insecure situation - Approach 2 doesn't make use of individual child's photos and personal information so it is more secure as compared to approach 1. 	<ul style="list-style-type: none"> - There is greater incentive and encouragement for the child to make use of the app with approach 3 as opposed to approach 1 where there is no incentive offered. - Approach 3 allows users to meet a more diverse group of people to interact with since they aren't choosing who they meet.
Approach 2: Posting joinable groups in list format (divided by categories)	<ul style="list-style-type: none"> - Approach 1 connects children with individuals based on same interests and their choices as opposed to approach 2 where individuals simply just meet at the enlisted events - Individual interactions provide greater opportunity for 	Child is given different category options for events in the area in list format from which he/she has the opportunity to choose	<ul style="list-style-type: none"> - There is greater incentive and encouragement for the child to make use of the app with approach 3 as opposed to approach 2 where there is no incentive offered for the events so listed. - Approach 3 makes more use of the interaction design style and involves the user directly in a real-life situation making use of

	<p>potential friendships for children going closer to the main global goal.</p> <ul style="list-style-type: none"> - Approach 2 doesn't make use of individual child's photos and personal information so it is less visually appealing as compared to approach 1. 		<p>'Recognition over Recall', whereas Approach 2 is simply a list format design which is less interactive and less visually appealing.</p> <ul style="list-style-type: none"> - There is a greater connect with the real world for Approach 3 as opposed to with Approach 2.
<p>Approach 3: Reward system with map configuration</p>	<ul style="list-style-type: none"> - There is a more individualistic design offered by Approach 1 and people may be matched with people of similar interests based on their decisions, but in case of Approach 3 there is a possibility of children not meeting anyone at the PlayStops. - Approach 1 has a simpler UI allowing easier navigation compared to Approach 3's complex and cluttered UI. 	<ul style="list-style-type: none"> - There is greater security offered by Approach 2 because the group of people present at the enlisted events in the list are more easily comprehensible as compared to the ones at PlayStops in Approach 3. - The interface of Approach 3 may be difficult to use for new users as compared to the simple list offered by Approach 2. 	<p>Child can earn rewards such as gift cards and other incentives for simply connecting with other children in a specified location parameter shown in form of a map</p>