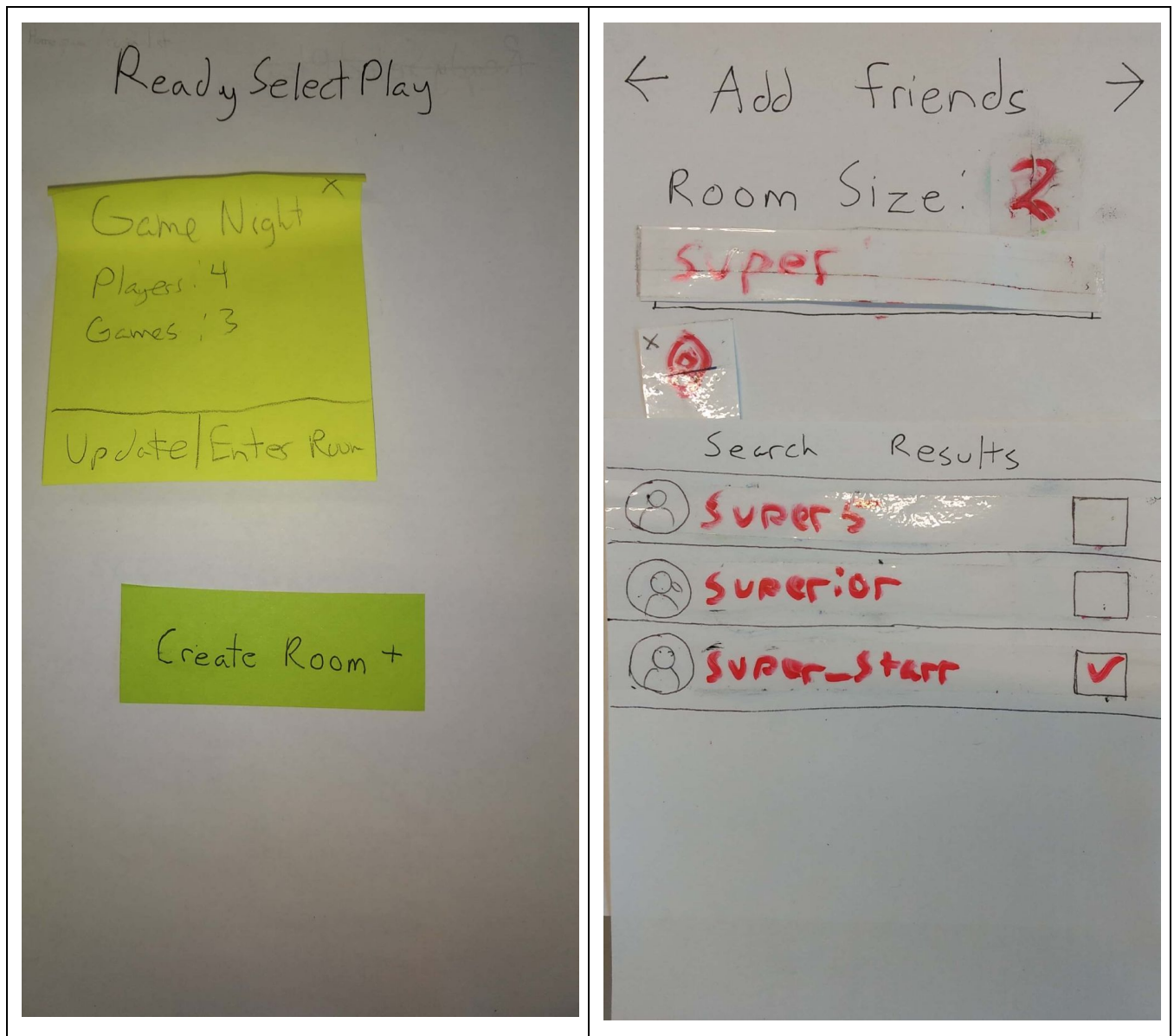


Photographs of Paper Prototype:



← Add Games →

Number of Games: 3

MON



Search Results

	MONOPOLY	<input type="checkbox"/>
	MONOPOLY	<input checked="" type="checkbox"/>
	MONOPOLY II	<input type="checkbox"/>

< Room Details Create

Game Night

Room Size: 4

active 12.31.

olderush

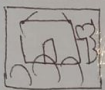
super_star

← Filter Games

Begin Voting

2 Games

Filters (1/1)



mis

No. of Players ☐



mis

Duration ☒

Complexity ☒

Light ☒

Medium Light ☒

Medium ☒

Medium Heavy ☐

Heavy ☐

Back

Voting



monopoly

(1)



bang!

(1)

Submit Vote for

monopoly

OK

Cancel

Submit Vote

Voting

Your vote has been recorded.
Please wait until ~~all~~ everyone has
voted.

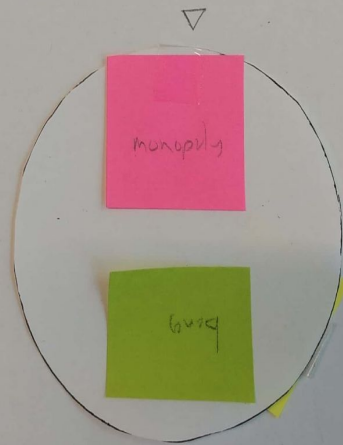
No of votes received

4

End Voting Process

Result

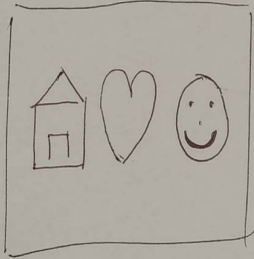
It's a tie!
Spin the wheel to select
a winner.



Spin the Wheel

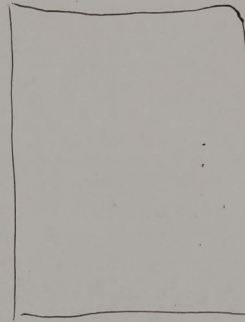
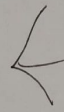
← Result

The winner is :



monopoly

View Game Details



bingo

Description

No. of Players

4-7

Duration

30m

Complexity

light medium

Mechanics

competitive

Category

card game

ReadySelectPlay Paper Prototype User Testing

Date of Report: February 21st, 2019
Date of Test: February 20th-21st, 2019
Location of Test: Boston, MA

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Executive Summary

This undertaking was done as a part of our project ReadySelectPlay. Our intent with ReadySelectPlay is to design an application to assist people organizing, hosting, and attending board game parties with cataloging their game collection and helping them select a game based on their preferences at the time. The purpose of this study was to test our application's initial design through paper prototyping with the help of some volunteers. We went through three scenarios with each of our six volunteers: creating a 'room' within our application containing a list of friends and games (that we provided as part of the task), narrow that list of games down based on (provided) preferences of other hypothetical attendees in the party, and go through a voting process with those other attendees to select a single game to play.

We performed our study with volunteers over two days: February 20th and February 21st, 2019. All of our testings was done in Room 102 of West Village H on the Northeastern campus in Boston, MA. After greeting a participant we read them our user briefing, explained the context of our project, and provided them each task. We also provided them with a dry erase marker to use when entering text such as typing a board game name into a search field. Each task also listed premade usernames and game names so that participants did not need to take time coming up with usernames or thinking too long about which games to enter.

Overall most participants were able to complete our tasks, though not without a few mistakes. Two participants failed to complete our second task, instead opting to select a board game manually. The biggest source of confusion seemed to be around the overall structure of how the app functioned; it was not clear to our participants how the tasks were discretized. Of particular note is that many attempted to perform later tasks, such as trying to select a single board game to play during the room creation process or during the filtering scenario. This could be attributed to a lack of enough context for participants or potentially to an initial difference in perception as to how the app functioned. When asked afterward, participants were not overly critical of the structure of the application, more often than not their criticisms were focused on convenience and flexibility. We believe that clearer communication of the app regarding its overall process and the purpose of functional elements like the "room size" indicator is the important takeaway from this study.

Methodology

Who we tested

We tested 6 participants, all male students ages 21-25. After testing our participants we asked each the following questions:

- What is your gender?
- Are you a Student?
- How often do you play board games?
- What type of board games do you generally play?
- How much time do you take to decide on which board game to play?
- How do you decide which game to play?

#	gender	student?	How often do you play board games?	What type of board games do you generally play?	How much time do you take to decide on which board game to play?	How do you decide which game to play?
1	M	Y	Never	-	-	-
2	M	Y	Now once a month, but before the semester several times a week	Basically all types, but particularly card games	5-10 minutes	Group negotiates preferences by talking; rarely has hard restrictions.
3	M	Y	2-3 times a week	Strategy games, simpler games like monopoly	Maybe 15-20 minutes	"Based on how the group is feeling and how much time we have left."
4	M	Y	Twice a week	Strategy and card games like Monopoly and Uno	Not really any significant time to decide; "we just select it"	"We just select it"
5	M	Y	"Not much"	-	-	-
6	M	Y	Around once per month	Monopoly and Ludo.	"Depends on how many games we have."	Just have 2-3 games.

What participants did

We spent 20-30 minutes with each participant except for participant #4, with whom we spent an hour gathering feedback and having them complete the tasks. Participants interacted with the prototype by touching parts of the prototype as if they were pressing a phone touchscreen and writing using a dry-erase marker when they were prompted to fill in a text box. All our participants were able to complete the tasks, though there were some errors in meeting all the requirements the tasks asked for, and some had to attempt the task multiple times before succeeding. Before the tasks were given participants were encouraged to give their thought processes and observations as they proceeded. At the end of

performing the tasks, the participants were asked to give their feedback about the design of our system, including any recommendations for changes or alternatives.

What data we collected

- We recorded each participant's observations while they were performing the tasks.
- We noted discrepancies such as whenever the participant expressed confusion, whenever the participant made a mistake, or whenever the participant attempted or wanted to perform something outside the scope of the task.
- At the end each task we asked each participant several questions to get their feedback about particular aspects of the task and the design.
- We asked participants about their board game habits such as how often they played board games, what kind of board games they played, and how much time they take to decide on which board game to play.

Major findings and recommendations

Major issues and proposed solutions

- **Issue:** The term "Room size" actually meant the current size of the room initially being 1 and incremented every time a friend is added to the room. However, it misled users who thought it meant the capacity of the room i.e. the maximum number of friends they could add to the room.
Solution: The term can be changed for better clarity to "Current number of people in the room" and adding an avatar of the party host without a cross in the corner just below the search bar depicting that they are already in the room and the number will count them too along with all the friends which they will add to the room.
- **Issue:** Navigation to next screen after adding friends to the room. The user would have to tap on the "right arrow" at the top right corner to do so, which was not so intuitive.
Solution: The "right arrow" icon could be replaced by either a "check-mark" symbol or a button with "Next" on it.
- **Issue:** It was not clear to some users which games were needed to be added, the games which they owned or the games which they wanted the party members to play with after looking at descriptions of each game and manually filter them before adding. The expected one was the former one.
Solution: Though the task description asked users to add games which they own (4 games which we provided), the interface did not mention anything other than just "Add Games". Thus, changing that term to "Add all games you have" or "Add all games you own" would be a better option.
- **Issue:** After coming at the "Room Details" screen, the users were sure that the list of friends they added was saved but they were skeptical if the games they added on the previous screen got saved.
Solution: The "Room Details" screen mentioned the list of friends the user added but "added games" section was absent. Adding the list of games below the list of friends would solve this problem. Both would be expandable/collapsible lists which would be easy to view.
- **Issue:** This is a major one. Users were unable to begin Task 2 properly from the home page. There were two buttons on the screen titled "Update" and "Enter Room". The users could view the room they just created and edit the list of friends and games by clicking on the "Update" button

and in order to view the list of games and to apply the filters on them, user had to click on “Enter Room”. However, they thought that in order to filter the games, they need to select the “Update” button (which is actually the button for updating the room) and selected the same. Then, they removed the games on the “Add Games” screen after looking at the description of each game and applying the given preferences manually.

Solution: Flaw in the nomenclature of the two buttons misled the users. A better name for the “Update” button would be “Update Friends/Games” which would not get confused with the new name for “Enter Room” button: “Filter/Vote Games”. “Vote” would also be included in the button name as one could not be interested in applying/watching filters and just vote (which can be done by the “Vote” button on “Filters” screen). One more alternative is to have different buttons for “Filter Games” and “Vote Games” as they are not sequential and viewing of filters is optional.

- **Issue:** Users were happy to vote, but not for just a single game. They wanted to vote for multiple games and convey a message something like “Among the games A, B, C, D, E, ... , K, I’m fine with playing any of B, E, G or J games but my preferred game is A”.

Solution: Approval voting would be able to tackle this issue. Users would be able to vote for multiple games and the game with the maximum number of total votes would be the winner or we could ask the users to vote for their top “k” games and add weights to the votes based on their order of preference. There would be a minor change in the screen where the party host can view the number of votes in real-time. Instead of “Number of votes received”, that screen would now say “Number of people who voted”. This counter would be present for the party host to decide when to end the voting process.

Detailed findings and recommendations

User Briefing

“Thank you for agreeing to help us out. (introduce ourselves) We’re working on an app to simplify the process of selecting a board game to play at a party. The purpose of this session is for you to help us figure out how to make this mobile interface more user-friendly before we finish developing it. Our application will have two types of users: the person hosting a party, and the people attending it. You will be the party host in this scenario. You will be given three tasks; your job is to tell us what makes sense, what is confusing, whether it works the way you’d expect it to, etc. Matthew will be the computer; he won’t be talking, just managing the “screens”. Jayanth will be taking notes. I will be telling you the scenario and the tasks for testing our prototype. If you have questions, please feel free to ask them at the moment, but I may not be able to answer them until the end. Remember, we are testing our interface; we’re *not* testing you.”

Scenario 1 - Creating A Room

Task 1: “It is several days before a game night you have scheduled with your friends. Create a room with your friends and a list of games you own.

Your friends’ usernames:

- patty1234
- ddcrush
- super_starr

Games you own:

- Monopoly

- Settlers of Catan
- Bangl!"

Task 1 Findings	Recommendations
<p>User 1:</p> <ul style="list-style-type: none"> • Had confusion about what "Room Size" in page "Add Friends" meant. Thought that it meant the number of groups. • Also, the auto update to the size of the room when new friends were added was found to be confusing. • The button to switch to the next page in "Add Friends" was not intuitive. 	<ul style="list-style-type: none"> • Suggested to include options to add friends for all users and then on the "Add friends" page show a recommendation of friends to quickly add users to the room without having to type in the username
<p>User 2</p> <ul style="list-style-type: none"> • Did not like the design where the user has to click on the checkbox to select a particular game/friend. • Clicked on the back button in add friends/game where the progress would be lost if done so. • Did not like the search functionality. Wanted the search bar to refresh/ delete the query once a particular result was selected. 	<ul style="list-style-type: none"> • Clicking on the entire column should select that game/friend • Display friends on top of the search list and non-friends below them if they are both parts of the search result for the user query. • Provide a confirmation message asking the user of his action if the "Back" button was clicked as the progress would be lost on doing so. • If the back button is clicked save the progress and display a draft version of the room on the home page. • Suggestions for actions on a particular room - (1) Edit, (2) Delete and (3) Interact • Should be able to enter the room by clicking anywhere on the square depicting the room in the home screen.
<p>User 3</p> <ul style="list-style-type: none"> • Participant thought he had to enter his own username where 	

<p>the user is expected to enter the username of his friend in order to add the friend to the game room.</p> <ul style="list-style-type: none"> Other than that the user successfully completed the task. 	<ul style="list-style-type: none"> Wanted option to search for details of a game that is available to the user before creating the game room. Found it confusing to create a room. Said that it was confusing as “So much was happening” Should have a friend list to quickly add users instead of having to type their usernames
<hr/> <p>User 4</p> <ul style="list-style-type: none"> Was confused about what “Room Size” meant. Did not find the “Next” button to switch to the next screen after adding friend. Found the design to be to “Formal”. 	<hr/> <ul style="list-style-type: none"> Should have an option to directly add friends without having to enter usernames as the process of having to type in all usernames is hectic. Suggestion to add friends using their social media accounts. Should display a list of most popular games while adding new games as it becomes easier for users who mostly play popular games. Could have an additional feature to buy a game after searching. “Room Details” screen should display games as well.
<hr/> <p>User 5</p> <ul style="list-style-type: none"> Confused about room size. Had to explain. Confused about adding games. Was not sure that it meant adding games that are owned by the user. Confused about create room button. Thought it meant creating a new room again and did not realize it was a confirmation message to finalize the actions done so far. 	<hr/> <ul style="list-style-type: none"> In the “Add friends” screen, the entire row should be made clickable and not just the checkbox. Should have a screen to mimic registration page as all search results in add friends will display only registered users.
<hr/> <p>User 6</p> <ul style="list-style-type: none"> Confused about room size. Thought it is an input box. “Next” button to go to “Add Friends” was confusing. 	<hr/> <ul style="list-style-type: none"> The buttons to switch screens should have an intuitive title and not just a “>” Button.

<ul style="list-style-type: none"> Choose to add only one game as it is the only game he wanted to play. Confused about having to enter room name before confirming action to create the room 	
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Scenario 2 – Filtering Down the List of Games

Task 2: “It is now the night of your event. You and your friends have gathered together to decide what to play. Filter down board games according to your group’s preferences for the night.

- Four people will be attending.
- super_starr can only play for an hour.
- patty1234 doesn’t want to play anything that’s too complicated.”

Task 2 Findings	Recommendations
<p>User 1</p> <ul style="list-style-type: none"> Failed to complete task 2 as he thought the user had to click on “update” room and then filter the games as opposed to our design where the user is expected to “enter” the room and then apply the filters. Completed the task after we explained to him what “enter” and “update” room was meant to do. 	<ul style="list-style-type: none"> Suggested to not allow updating/editing a room once created.
<p>User 2</p> <ul style="list-style-type: none"> Successfully completed task 2 	<ul style="list-style-type: none"> Allow selecting a range of players rather than an upper threshold. Add minimum and maximum for the duration of the game and also for the number of players. Add subfilters for each category of filters similar to GMAIL. After we explained how it would look like in our system, the participant felt that the current setting is better and we should stick to it. Should allow all users to apply filters and not just the party host

<hr/> <p>User 3</p> <ul style="list-style-type: none"> • Successfully completed task 3 <hr/>	<hr/> <ul style="list-style-type: none"> • None <hr/>
<p>User 4</p> <ul style="list-style-type: none"> • Was confused about screen navigation. Clicked on the “update” button rather than “enter room” button to apply filters. Had to be guided to click on the right option. • Felt that the title “Enter Room” is confusing. • Confused in “adding filter screen”. Did not find the filter button and hence did not apply any filters. • Felt there was no need to apply filters at all. <hr/>	<ul style="list-style-type: none"> • Suggested to club task 2 and task 3 into a single task where instead of applying filters user could check the game statistics and could vote for it when adding the game itself. Had to be explained the importance and reasoning behind the filters. Participant later agreed that it was indeed required. • Suggested to add a feature where all users enter filters as applying filters after consulting everyone is a heavy task for the party host. • Should have the feature to move on to next filter automatically after a filter had been applied. • Should have the feature to remove games automatically if the size of the room is less than the number of players required for a particular game. • Feature to send a link to friends after a room has been created as this could be easier than having to enter all usernames. • Should have an option to incorporate multiple hosts. <hr/>
<p>User 5</p> <ul style="list-style-type: none"> • Clicked back button after selecting a filter every time to collapse the drop down box and did not realize that it would have been done automatically on clicking the next filter. • Confused about the games displayed in the details section. Did not realize that it meant to display information regarding the game and thought that clicking on a game meant voting for it. <hr/>	<ul style="list-style-type: none"> • None <hr/>
<p>User 6</p>	

<ul style="list-style-type: none"> • Instead of applying filters directly to shortlist the game, the participant viewed each game description to see if any of the games didn't meet the requirements and then applied filters. 	<ul style="list-style-type: none"> • Liked the interface.
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Scenario 3 – Voting on the Filtered List of Games

Task 3: “Begin the voting process and vote on your favorite game.”

Task 3 Findings	Recommendations
<p>User 1</p> <ul style="list-style-type: none"> • Completed task 3 successfully. 	<ul style="list-style-type: none"> • None
<p>User 2</p> <ul style="list-style-type: none"> • Was confused whether to click on spin the wheel button or actually spin the wheel 	<ul style="list-style-type: none"> • Suggested to use approval/preference voting where users would select a list of games from the filtered games they would like to play and then select their favorite among the list. Thereby add a weighted score when calculating scores for each game.
<p>User 3</p> <ul style="list-style-type: none"> • Did not like the “Spin the wheel” option as randomization would leave half the party unhappy. In doing so the users would probably feel as if the entire process of filtering games was wasted. 	<ul style="list-style-type: none"> • Should disable spin the wheel option and hide the fact it was a tie and just display the winning game even if it was picked at random. • The voting system can be changed to accommodate user preferences and hence use weighted voting.
<p>User 4</p> <ul style="list-style-type: none"> • Successfully completed task 4. 	<ul style="list-style-type: none"> • Should have an option to skip the voting process and provide the user with a “Surprise me” button to randomly select a game. • Users should be allowed to vote for multiple games instead of selecting just one game and hence voting can

	be improved by adding weights to votes.
User 5 <ul style="list-style-type: none"> Tried to actually spin the randomization wheel and did not click on the spin wheel button. 	<ul style="list-style-type: none"> None
User 6 <ul style="list-style-type: none"> Successfully completed the task 	<ul style="list-style-type: none"> Liked the voting system and the randomization wheel.

Exit Questions/User Impressions

Participant Number	How easy was it for you to create the room?	Did the filters in the filters menu meet your expectations?
1	"Easy."	(Participant didn't use the filters menu.)
2	Let's say I get distracted by my dog and come back and hit the back button. I shouldn't lose progress."	"Yes, but get more filters."
3	"Creating the room was a little difficult. So much was happening."	"It's better to have a filtered list." (about adding users): Users should be able to import contacts from social media accounts.
4	Would rate it about a 7 for easiness	Filters work fine in this way if there's only one party host.
5	Confused about several steps.	Felt like the filters menu was a bit confusing
6	Unsure about the next button, would prefer something else besides arrow.	Felt the filters met expectations. Didn't know too many games, so they appreciated being able to view them.

Participant Number	How did you feel about the voting system? Do you feel people will use it?	What issues did you face? Would you like to change something in the application?
1	Felt neutral about the system; expected people would use it.	"[The user should] not be allowed to edit the room once it has been created."
2	Preferred approval voting: the ability to add preferences and then pick a favorite.	Suggested letting other users add their own filters instead of just having the party host handle it. "I would rate it four stars."
3	Felt okay about the voting system; said he would use it.	<ul style="list-style-type: none"> • Joining a room should have an external link like in discord. So the user clicks on a link to join the room. • Wanted a chat option in case people use the app to play games remotely, or so they don't need to use another app to communicate. • Wanted a scheduling option with notifications sent to members to remind them. • Wondered about people who don't use the application or have a phone. • Liked the interface overall; felt it was intuitive. "Pretty solid app"
4	If there's no filter I don't like forcing people to *not* play a game	The main critique is they want "preferences", not "compulsions". Players should be able to select what they *want* to play.
5	"Offline voting is better if the number of people is lesser. Otherwise, the current system is good."	Time should be worked into selecting a game.
6	Liked the voting system, particularly the voting wheel when there's a tie.	Size will be an issue on the mobile screen.