Section 1: Game Design

Game - Homescapes

What are the Top 3 Pros of the game?

- 1. The base building component of the game is engaging, which makes it different than other casual match 3 games. You're given a messy house that is almost falling apart, and you have to refurbish it and neighboring areas to in time turn it into a beautiful place. It is definitely exciting in the sense that it keeps players anticipating about the newer areas of the home they could unlock.
- 2. The different types of puzzle games you get to play, in addition to the match 3 game keeps things fresh.
- 3. I understood the economics very early on, like where to spend money, coins, lives, etc. because it was frequently brought to my notice.
- 4. It is easy to learn and has just the right number of tutorials at the right times such that you know how to succeed in the game but also aren't bored of just learning.
- 5. The characters are great as well, they're funny, well thought of and have a great personality.

What are the Top 3 Cons of the game?

- 1. There aren't enough opportunities to earn stars and rewards, so the progression can get really slow. One task in base building requires at least one star. You are only given one star in the beginning, and you only earn one star after each level, so you run out of stars quite soon.
- 2. You cannot customize the house, for example: you're not allowed to select placement of furniture or decorative items. I feel it is a lost opportunity if users don't get to make their house however they like. It would allow them to express themselves and build something they're really proud of, keeping them deeply engaged with the game. It would also give developers more opportunities for live ops.
- 3. As stated in the pros, the game has other types of puzzle games too, but they come up very rarely. Having more of those would improve the gameplay experience by making it more diverse.

How would you improve each of the below areas for the game? Come up with 3 ideas for each category:

Virality: What kind of game features would you use to make players spread the word of the game to their friends and make them also play the game?

- 1. The game has a social feature and also team events, but both are introduced very late in the game. So, if my friend who is at a higher level wants me to join the game to play in her team, I wouldn't be able to, as a new player.
- 2. Instead of having team play events for a limited amount of time, the game should allow users to play as teams whenever they want. Most games that become viral usually have that thing in common, where you get to invite friends into the game and play together (example: Among Us, PUBG, CoC, etc.).
- 3. The team games also do not feel like real team play because you go on playing your current game as usual except that your crowns get counted as a team. Maybe having a separate community space to refurbish as a team, and puzzle games to support that, which can be played individually as part of a team challenge, would create a better team environment.
- 4. Another idea for increasing virality, would be to allow players to invite and compete against their friends/ other teams to either complete a level in the least number of moves or time for a special reward item.
- 5. Can offer different tiers of rewards to players for inviting others based on the number of people they invite.

Engagement: What kind of game features would you use to increase the number of gameplay sessions per day?

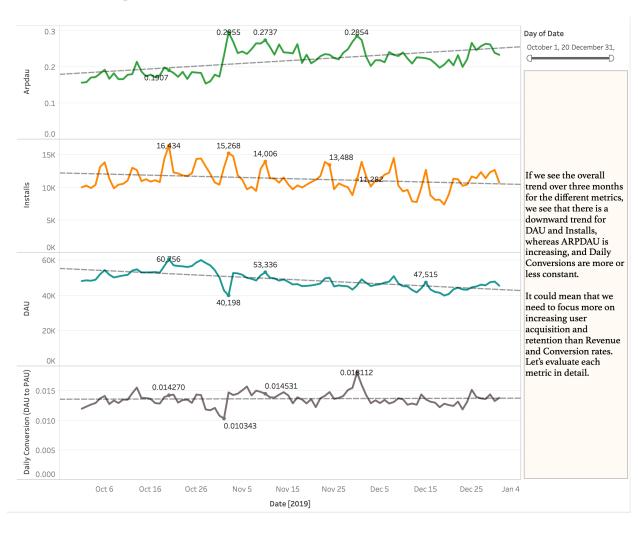
- 1. As stated in the pros, turning a messy house into a beautiful place is definitely exciting, but having more short-term goals to keep players going like having challenges or milestones or episodes (especially for stars), would certainly help user engagement.
- 2. The items in the game are shown only at the moment when you can use them, instead showing a catalog of what can be bought, not all but some soon to come up items, so the users know what to look forward to.
- 3. They do have some interesting in game events and definitely have some exciting rewards for participation, and additional rewards if you buy a paid ticket. However, they are introduced very late, by which time most players would have churned.
- 4. Allowing friends or other players to interact within the game through virtual characters. Having more elaborate events with teamplay like going on vacation with friends for a set amount of time (2-3 weeks) and adding new content to support the event and make it special.

Monetization: What kind of game features would you use to increase the revenue?

- 1. As mentioned before, getting rewards are a huge pain point in this game, so I believe rewarded ad videos might help users get rewards as well as help monetization. Since only up to 4 percent of players spend on in-app purchases, rewarded videos would be a good way to monetize on players that do not spend, but since it is voluntary, it wouldn't be annoying for them either.
- 2. Paying for a game and gameplay experience should not be seen as two different things. And the game does very well on that front where they have special items for a limited period in events, that users would be happy to spend on and proud to own. However, this applies not just to items but new experiences too. We can capitalize on that by having users pay for unlocking a special room or area in the house.
- 3. Starter pack is a good way for new players to get great value at huge discount. Also, having a sale on certain packages for a limited period of time for older users that usually do not make a purchase would encourage people them to make a purchase.

Section 2: Data Analysis

Overall Trend of Important Metrics



Revenue and ARPDAU



The Gross Revenue and ARPDAU show an upward trend with ARPDAU having a higher rate of increase, probably due to decrease in DAU and increase in overall revenue. Overall, we see that there has been a sharp drop in iOS revenue on all fronts from November end to mid-December, and even then it isn't picking up much.

When we look at the two charts in the bottom left we see the Gross Revenue and ARPDAU for Android as well as iOS users. which are further split into Gross IAP, Ad Revenue and IAP ARPDAU, Ad ARPDAU respectively.

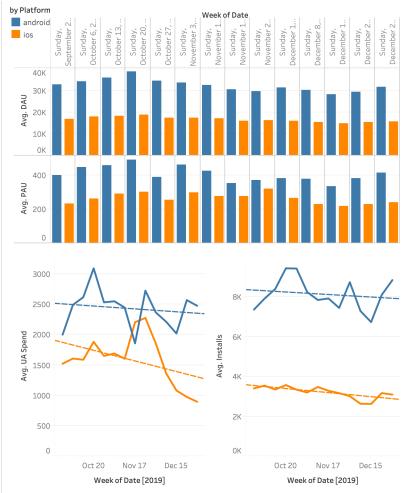
We see that the Gross Revenue is higher for Android users but the ARPDAU is higher for iOS users meaning that an average iOS player spend more than an average Android player. The Gross Revenue from Android users is increasing while that from iOS is decreasing and reaching a plateau towards the end.

We observe that the revenue for Android platform is increasing in both Ads and IAP as well as Ads and IAP ARPDAU. Android is surpassing iOS in Gross Ad ARPDAU. However, we could try to increase IAP ARPDAU.

On the other hand, we see that iOS is plateauing from a high in November end, so we could try to replicate a similar strategy from then.

Lets see how we can potentially increase the revenue for iOS from paying users and number of users in general.

DAU, PAU and UA Spend



We can see that even though DAU on iOS is almost half of Android, conversions to PAU are higher on iOS. I think we should try to focus on converting more non PAU iOS users to PAU, since iOS users seem more likely to pay.

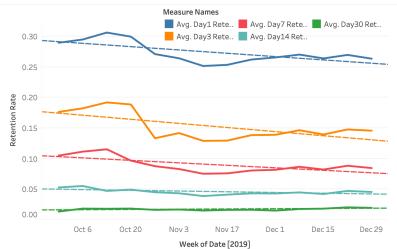
Here, we see the trend in Installs and UA spend for all days as well as for data aggregated by weeks (aggregation or moving average helps us see clearer patterns). There is a very apparent positive correlation between the number of installs and UA spend in Android users till mid-December after which we see an increase in the number of installs even when the UA spend is at a plateau which could mean that there has been an increase in virality of the game.

However, spending a bit more on UA can only help the Android platform and we could potentially see even more installs than previous months and consequently more DAU.

For iOS users, the UA Spend doesn't seem to affect the installs. This implies that either we are targeting wrong users on iOS, meaning we should improve the marketing strategy or there are better competitor games on iOS, which we could confirm after market research. That could also mean our best option right now would again be to focus on revenue from iOS.

Next, lets take a deeper look to see how well we retain our users.

Retention Rates



We see that retention rates in general are decreasing over the months, especially the Day I, Day 3 and Day 7 retention rates. We see a sharp drop in retention rates starting from the last week of October to the beginning of December with the highest retention being in mid-October and lowest in Mid-November.

Week of Date	Avg. Day1 Retention	Avg. Day3 Retention	Avg. Day7 Retention	Avg. Day14 Retention	Avg. Day30 Retention
September 29, 2019	0.2899	0.1767	0.1053	0.0532	0.0138
October 6, 2019	0.2952	0.1826	0.1118	0.0555	0.0186
October 13, 2019	0.3065	0.1923	0.1156	0.0475	0.0184
October 20, 2019	0.2999	0.1889	0.0971	0.0496	0.0187
October 27, 2019	0.2713	0.1337		0.0454	0.0165
November 3, 2019	0.2645	0.1422		0.0437	0.0171
November 10, 2019	0.2519	0.1294		0.0391	0.0154
November 17, 2019	0.2537	0.1298		0.0414	0.0164
November 24, 2019	0.2624	0.1388		0.0435	0.0167
December 1, 2019	0.2658	0.1393		0.0434	0.0153
December 8, 2019	0.2705	0.1468	0.0870	0.0451	0.0179
December 15, 2019	0.2643	0.1398		0.0425	0.0185
December 22, 2019	0.2700	0.1481	0.0887	0.0476	0.0207
December 29, 2019	0.2638	0.1461	0.0849	0.0458	0.0198

0.3065

Measure Values

0.0138

From the cohort analysis too, we see the cohorts from weeks after October 20th, show a decrease in overall retention rates. The reason for this could be either something within the game itself that changed, for example – number of events/it is buggier than before, or there is something about the cohorts themselves – like the cohorts in the low retention weeks must have been the wrong target audience.

The prior seems less likely since the Gross Revenue and ARPDAU for these cohorts is still increasing (as seen in the previous charts), meaning the right audience even if lower in number, like the game, are willing to stick around and even spend more on it.

However more people are churning because most of them are not the right audience. The same reason could be the cause of lower DAU. We do see a slight improvement in retention and DAU towards the end of December.