

University of California, Irvine

Abstract Game: *High Roller*

Material constraint: Dice

Mechanical constraint: Short rounds

<https://youtu.be/ApwWrqGPArYv>

Assignment 2

Design Team 28: Team WALKMan

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GDIM 25: Game Design Fundamentals

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Rules

High Roller

A strategic dice game for 2-8 players where you roll high to win.

Contents

-  2 decks of **cards**
-  #player **six-sided die**
-  #player **ten-sided die**
-  #player*4 **save tokens**
-  #player*4 **win tokens**

Setup

-  Shuffle the deck of **cards** together and place them face down in the middle of the table.
-  Give each player a **six-sided die**.
-  Everyone rolls their die. The player who rolls the **HIGHEST** number goes first for the first round. Proceed clockwise.

Goals

The goal of each **round** is to have the highest **SUM** in the cards in one's hands.

The goal of the **whole game** is to get **FOUR (4)** **win tokens**.

Powers

If you draw an **ACE, JACK, QUEEN, or KING**, you can **either** use the **card** to add to your total at the end of the round, or you can choose to use its **power**.

Each card has a different power:

- A** **Trade** the Ace card in for a token
- J** **Steal** another player's token
- Q** **Steal** another player's **card**
- K** **Roll** a **ten-sided die** next round

How to Play

- To start their turn, a player rolls their die.
 - The number they roll is how many **actions** they have. They can use an action to draw a **card** or take a **save token**, which they can trade in for cards in future turns.
 - Players may have a maximum of **TEN (10)** **cards** in their hand and **FOUR (4)** **save tokens** at any time.
- First, if they have **save tokens** from previous rounds, they can decide if they want to use them.
- Then, the player draws their **cards**.
- After a player draws their cards, the next player follows steps 1-3 (going clockwise).
- Once everyone has taken their turn, go around the table once more and choose whether you want to use a **power card**.
 - You can only use **ONE (1)** **power card** per round (refer to Powers section for description on power cards).
- All players now **reveal** their cards and sum them up.
 - ACES** are worth **ONE (1)**, **ROYALS** are worth **FIVE (5)**, and the rest of the cards are their respective values.
- The player with the **HIGHEST** sum wins and gets a **win token**.
 - TIES**: If two players tie for the highest sum, each person tied draws one more card. If the tie persists, players continue drawing cards until one player has a higher sum.
- At the end of each round, **shuffle** all cards back into the deck.
- The **winner** of the current round goes **FIRST** in the next round.

Example Game

This example round includes 3 players who are playing their second round. P1 already has 1 token and P3 won last round

1. Going around the table each player takes their turn starting with P3
Summary of turns:
 - P1 rolls a 1, P2 rolls 5, P3 rolls 1
 - i. P1 uses 1 token, takes 2 cards
 - ii. P2 takes 3 cards and 2 tokens
 - iii. P3 takes 1 token
2. P1 drew a Jack and P2 drew a Queen
 - a. P1 uses the Jack and takes a token from P3
 - b. P2 doesn't use the Queen as a power and keeps it
3. P1 and P2 reveal their cards (P3 didn't pick up any cards, so they have nothing to reveal)
4. P1 and P2 sum the total face value of their cards
 - a. P1 reveals a 10 of hearts
 - b. P2 drew a 3 of spades, 5 of hearts, and Queen of hearts (value of 12)
5. P1 has a total face value of 10 and P2 has a total face value of 20
6. P2 wins this round and gets a win token.
7. Shuffle all cards into the deck
8. P2 goes first next round

Post-Mortem

Design Process

Our design process was very simple and straightforward. We started by taking into consideration our material constraint of dice and mechanical constraint of short rounds and brainstorming various game ideas that implemented those constraints. Once we had chosen a game idea, it was then time to flesh out the rules of the game and work towards making the game ready for playtesting. Since we had a solid idea on the game we wanted to make, the formal rules of the game fell into place around the original idea. We were able to define the majority of our formal rules early on except for the powers which became the main topic of discussion throughout the rest of the design process. We were ready to complete our first playtest, which went very well and helped us figure out minor changes to the rules. After the first playtest, we tweaked the rules somewhat and moved on to the second playtest which resulted in minor modifications of our rules as well. After having a solid set of formal rules by this point and completing two playtests, the last thing on table to come to final decision on was the powers game feature. The main issue was making the powers too overpowered or completely useless, but eventually we found a middle ground that made the powers a fun and satisfying part of our game. Once the powers rules were defined and completed, we had created a game that we were all satisfied with and reached the end of our design process.

Where we began

We were given material constraints, dice, and mechanical constraints, short rounds, which meant we had to design a game that contains dice elements, and each round had to be finished in a minute or less. Thus, in the first meeting, our team brainstormed together and came up with

four main ideas (for more detailed information, see [Meeting 1](#) notes). We finally decided to use Lu's idea, and it became the prototype of *High Roller*.

How this idea came up:

Since the dice have to be included in the game, the number on the dice needs to represent something meaningful. At the same time, for the short run constraint, it is better to make some connections from one round to the next. Thus, it gave us the idea to accumulate the number on the dice (points) among runs, which later developed into the “save tokens” idea. Then, after building the connection, we needed to consider the win condition in each round and the meaning of points. Since we decided to use the number on the dice as points for accumulation, there had to be something else to play in each round. Therefore, we came up with an idea to use the highest sum on poker cards to be a win condition, and because of this win condition, the more cards a player has in one round, the more likely he/she would win, which means the accumulation rule works for this idea.

What happened along the way

[Big Playtest #1](#)

Our first playtest provided valuable insight to major features our game was missing. For example, we had not set a definite win condition yet. We had the option to use the number of win tokens or the number of rounds completed, and we decided to use the win tokens because we felt it would be easier.

Another issue our playtesters encountered during the playtest was the number of cards available. We were using a standard deck of fifty-two cards, but we had a discard pile after each round. As a result, after a few rounds of people drawing cards, there were none left to draw from

and we had to reshuffle the discard pile. From this, we did some mathematical calculations and assumed that if we set a card limit to ten per person, and we had a maximum of eight players, then the maximum number of cards in one round would be eighty. Therefore, we revised the rules to contain two standard decks of fifty-two cards. Then, we added a rule to reshuffle the cards after every round so that there would be 104 cards available each round to draw from. From this, we also set a save token limit of four because a player can roll a six on the die and use four tokens for a total of ten cards in their hand.

In the first playtest, we had enough time to allow our playtesters to play one round without the powers feature, and one round with the powers feature. They mentioned that the game was fun either way, but having no powers allowed them to get more excited over the large number the Queen or King cards provided to their sum. We also realized that we should assign a power to the Ace card since it is also considered a Royal. After some thinking, we also suggested making it a choice to use the power cards so that they could have the power or the number, but then we would have to lower the value since people would not use the powers if the value of the card provided more benefit.

Big Playtest #2

Our second playtest revealed a few design flaws in our game. One of the main ones was the lack of a turn system. We initially decided to not use a turn system so that our game would be more able to meet the constraint of having short rounds. However, the playtesters pointed out that having everyone roll at the same time allowed players to decide on what to do based on the rolls of other players. This made it easy for the person in the lead to make plans on whether to save or try to win the round, causing a sort of snowball effect. Thus, we implemented a turn

system and made it so that the winner of the previous round would roll first on the next round, which limited the amount of information they get.

Another thing that came up was the length of the game. With 3 players, the game took a total of around 5 minutes, which felt too short, so we decided to raise the amount of tokens needed to win to 10. However, when the number of players increased, the game took way too long, so we ended up decreasing the number of tokens needed to 5, then finally to 4. We also felt that having separate rules / operations for saving and using tokens was redundant, so we decided to combine the rules and restrict players to either only use tokens or only save tokens each round.

We decided that for the second playtest, we would have the playtesters play without the royals having powers, and the feedback we received from them was very positive. The game was simple, yet enjoyable and had a good amount of strategy involved. When we brought up the idea of power cards, they said it was a good idea, but simplicity isn't a bad thing and that our game was fine as is. In the end though, we decided to give the royals powers because we felt it would add another layer of complexity to the game.

Where we ended up

After two playtests and peers' review sections, we collected the feedback from other groups' members; they had tried both versions (with and without power cards). That feedback is very helpful to us to make decisions on the final version of *High Roller*.

The result of the feedback shows the majority want us to keep the settings of power cards. However, a strength of our game is that it is fun with or without the powers. On the contrary, a weakness we discovered during the process of building our game included not setting limits on the cards or tokens because it became too overpowered if someone saved their cards for

big rounds. It may still be a weakness with the limits because people can use the dominant strategy of doing big rounds, but it has not been a huge problem in our playtests. Furthermore, we noticed the power cards were much more powerful than we thought in some particular situations, even breaking the game balance. We had more than one discussion about our power cards' ideas, and we eventually decided to limit the number of power cards a player can use in one turn, and reduce the value of power cards if treated as a number card since we want players to make meaningful choices in each turn after careful analysis. Right now, those cards with stronger power have lower value, and players can only use one power card in their own turn. Players should think about which power card in their hand is most likely to help them win this round of game very carefully before they make a decision.

We have tried this final version ourselves. After four weeks' design, *High Roller* now meets all requirements and is still enjoyable but more strategic than before. We hope every player can have fun with it!

Design Notes

Meeting #1

Date/Time: Thursday 1/20/22, 3:30-4:50pm

Attendance: Ally, Lu, Matthew, Kenneth

Playtesters: N/A

What we learned and want to change for the next iteration: We learned how to work off of each other's ideas and compare ideas. Next meeting: narrow down our ideas.

dice

short rounds

Ally's idea

- Using a die of 6 sides, a player chooses three bad numbers and three good numbers, and if they roll a good number, they get one point. First to 10 points wins.
- Or, when they roll a good number, they have to give the dice with the bad numbers to the other player(s). The goal of the game would then be to make everyone lose all their dice.

Ally's 2nd idea

- A cards and dice game similar to spoons, where you roll the dice, and that determines how many times you pass a card

Lu's idea

- Assume there are poker cards. The player rolls the dice, and the number on the dice(let's call it points) means the maximum cards you can grab/have for a round. For example, if you roll the dice and the number is 6, you can choose to have up to 6 cards. You can save points for the next round, such as getting 6 points, you can have 4 cards and save two points for the next round.
- Then, you add up all the numbers on the poker card and compete it with other players. The player who has the highest number(the sum) wins this round.
- For the next round, you can use the points you accumulated in previous rounds. It means if you save 2 points in previous rounds, and you roll the number 3 this round, you can have up to 5 cards on this round. It depends on the player if they want to keep the points or use the points.
- Once someone wins 5 rounds, this player wins the game.
- The purpose of saving points is because the winning condition of this game is who has the highest sum of the numbers on poker cards in each round, which means the more cards you have, it is more likely you can win this round.

Kenneth's idea

- All players roll 5 dice. Whoever has the highest dice total gets 1 point. All losers draw an ability card.
- Next round, players can choose to use their ability card or save it for future rounds. (Ex: x player rolls 1 less die / you roll one more die; Subtract x from one player's dice total/You can add x to your dice total; cancel one of x player's dice; reroll one of your dice / reroll another person's die; block one ability)
- Whoever gets 5 points wins.

Meeting #2

Date/Time: Monday 1/24/22, 4-4:50pm

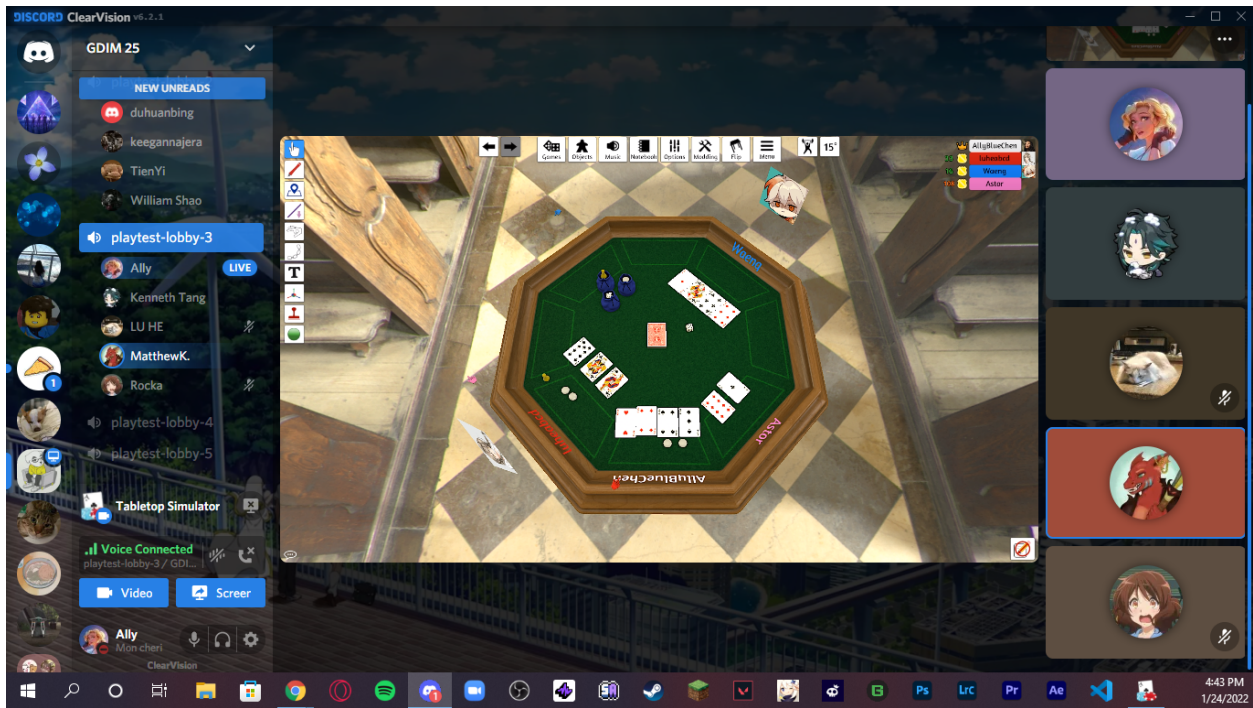
Attendance: Ally, Lu, Matthew, Kenneth, Weilin

Playtesters: Ally, Lu, Matthew, Kenneth

What we learned and want to change for the next iteration: We learned a lot about our rules, so for the next iteration, we want to test out and narrow down our different ideas and differentiate which ones are too overpowered or too weak.

Notes:

- going with Lu's idea
- limit on tokens: 6
- first to 5 wins
- what to do with royals:
 1. Lu: have them count as 0 because they're too powerful
 2. Ally: have them count as black marbles that will be used to draw cards in a bonus round at the end
 3. Ally: use them as special powers
 4. Kenneth: Have them ~~count as 1,2,3~~ for jack, queen, king + a power
 - a. King (one of these, need to discuss):
 - i. roll a dice, add that many to your card total (take another turn in the same turn)
 - ii. take a card
 - iii. Discard any amount of cards, and draw that many again (?)
 - iv. extra die for the next turn
 - v. next round can use a die of 12 instead of die of 6
 - b. Queen: gain a token
 - c. Jack: steal a token
- royals should be used after everyone gets their cards
- royals: only use one royal card per turn?
- discard pile or shuffle after each turn?
- royals shouldn't have tier levels because then it would be a no brainer to choose which one to use
 - may need to nerf the king



Meeting #3

Date/Time: Tuesday 1/25/22, 3:30-4:50pm

Attendance: Ally, Lu, Matthew, Kenneth, Weilin

Playtesters: Ally, Lu, Matthew, Kenneth, Weilin

What we learned and want to change for the next iteration: We learned that our power cards had some issues and for the next iteration, we want to refine or change those cards.

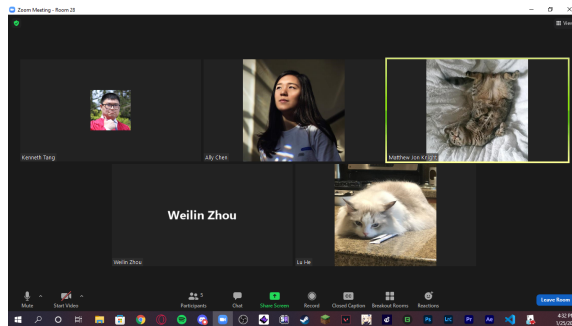
Notes:

- Queen power changed to: steal a card
- ~~everyone rolls a die to start, highest number goes first, and we go clockwise~~
 - change rule to everyone rolls at the same time
- after each round, we put the cards into a discard pile (bc it's faster than reshuffling)
- changed background from Church to Forest (to honor our amazing professor)

Problem: everyone decided to take tokens except for Lu, who drew cards. However, she drew a Queen, which allows her to steal a card. Possible solutions:

- she can save the queen card for next round
- ~~everyone has to draw at least one card~~

^ same for jack card



- power cards must be used the next round, cannot be saved indefinitely



Meeting #4

Date/Time: Thursday 1/27/22, 3:30-4:50pm

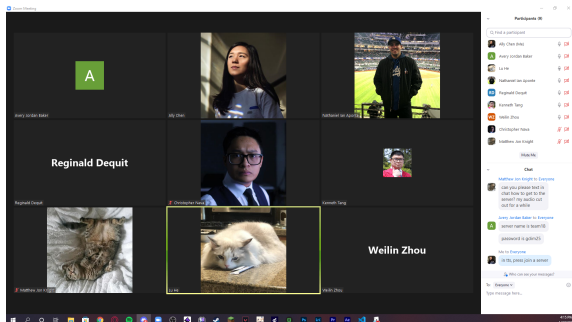
Attendance: Ally, Lu, Matthew, Kenneth, Weilin

Playtesters: Design Team 18 - Nathaniel Aponte, Avery Baker, Christopher Nava, Regional Dequit

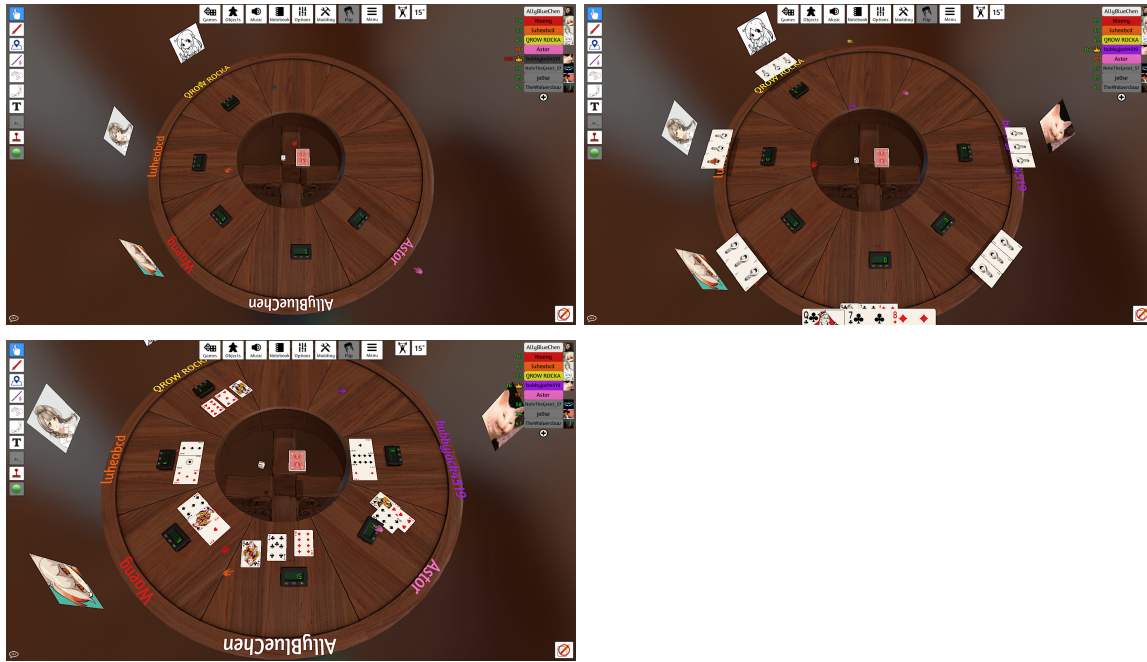
What we learned and want to change for the next iteration: We learned that the game is fun with or without the powers. What we want to change for the next iteration is to specify a win condition and maybe limit the number of cards and tokens.

Notes:

- after we look at cards, cannot use tokens?
- do we require everyone draw a card each round no matter what?
- playtest 1
 - Victory condition: 3-4 rounds to determine who wins? (depends on number of players); or first to two tokens?
 - consider **reshuffling** cards each round
 - limit the number of cards? maybe not because rewards saving
 - maybe **limit 10** if any limit
 - limit the number of tokens you have/use? **maybe 4 tokens** in case someone gets 6
 - power cards: if you don't use the card, save for next round?
 - possibly no power cards since getting Q or K is exciting
- playtest 2 (with powerups and limitations)
 - use power ups before revealing cards
 - should we make ace count for something?
 - should make it a choice to use them, and make all face cards 10



Playtesting Design Team 18's game



Design Team 18 playing our game



Meeting #5

Date/Time: Monday 1/31/22, 4:00-4:50pm

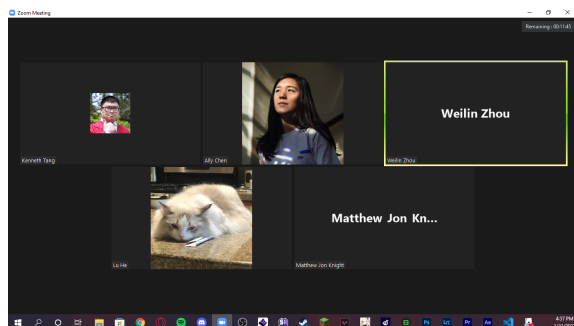
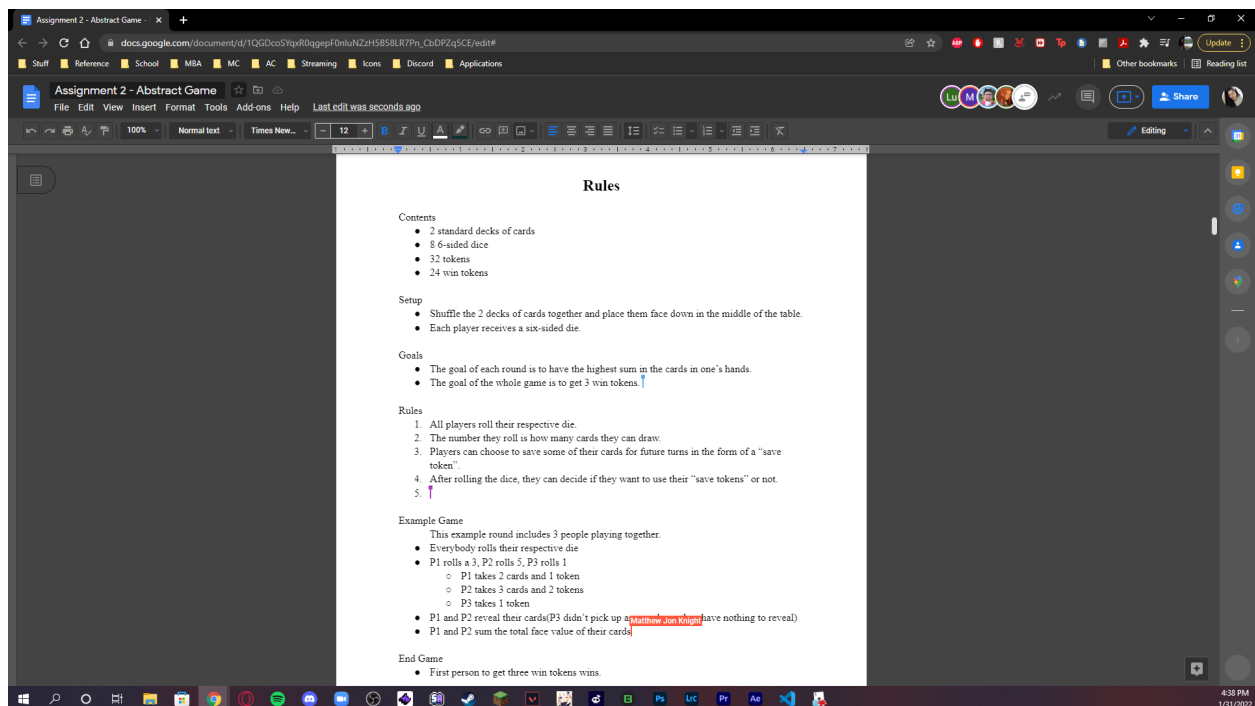
Attendance: Ally, Lu, Matthew, Kenneth, Weilin

Playtesters: N/A

What we learned and want to change for the next iteration: We learned that being more specific with rules is better, and for the next iteration, we will see if the playtest is okay with just the written rules.

Notes:

- wrote the rules of the game for playtesting tomorrow



Meeting #6

Date/Time: Thursday 2/3/22, 3:30-4:50pm

Attendance: Ally, Lu, Matthew, Kenneth, Weilin

Playtesters: Design Team 19 - Collin Freeman, Mary Kassab, Lyndsey Narvaez

What we learned and want to change for the next iteration: We learned that our game is simple and fun, but adding powers would be okay to add some more to it. For the next iteration, we want to implement a turn order system and set the win condition to ten tokens.

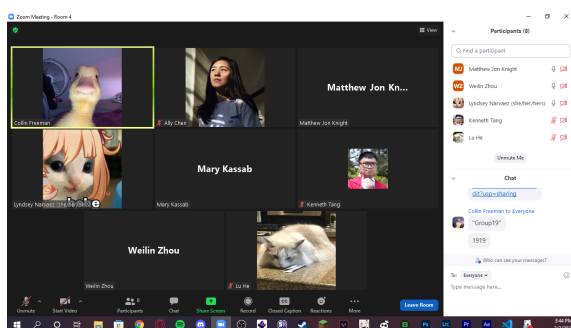
Notes:

- asked question about whether they can mix up cards and tokens
- should have a **turn order system** because we don't want them to decide by knowing the other players' numbers
 - **whoever won goes first**
- maybe first to **ten win tokens** because it's pretty short
- did we put a limit on the cards/tokens on the rules document?
- Combine save token and draw cards rules (2,3)
- set a power to Ace
 - choice for using the power or number
 - maybe one power per turn

Playtesting Design Team 19's game



Design Team 19 playing our game



^Ally's quick win GGs :P

Meeting #7

Date/Time: Monday 2/7/22, 4-5:30pm

Attendance: Ally, Lu, Matthew, Kenneth, Weilin

Playtesters: Ally, Lu, Matthew, Kenneth, Weilin

What we learned and want to change for the next iteration: We learned that we should manage time well so that our recording doesn't coincide with the end of discussion, and we have nothing else to change for the next iteration!

Notes:

- worked on post-mortem and recorded the playthrough

