

Cat Nap

DESIGN DOCUMENT

“Roll, sneak, and squeak your way to victory before
the cat catches on!”

Team Name: Cat Nappers

Team Members: Naveedah Adegoke, Nate Goff, Camille Lach, Steven Poore,
Seth Vandivere



From left to right: Steven Poore, Camille Lach, Naveedah Adegoke, Seth
Vandivere, Nate Goff

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Elevator Pitch

Cat Nap is an asymmetrical game about a cat trying to hunt down mice. It is a hide and seek type mechanic, so the cat will not be able to see the position of mice. Players will navigate through a board using dice rolls to move and cards to gain extra abilities like traps or information. The mice will act as a team to attempt getting as many mice as they can from one side of the board to the other without getting caught, while the cat will try to stop them.

Summary

- High Concept:
 - An asymmetrical cat vs. mouse board game with hidden movement
- Game Genre or Category:
 - Asymmetrical
- Setting/Narrative:
 - Set in a typical household, primarily focusing on a food pantry. Cats aim to prevent the mice from reaching their goal (a pantry with food or a cozy hole in the wall) while the mice strive to evade capture.
- Target Player:
 - Family or friend groups, young people friendly
- Play Value:
 - It offers a unique blend of strategic thinking, teamwork, and unpredictability, providing players with a high-paced gaming experience. Each game round is filled with tension and excitement as players weigh risk against reward, trying to outsmart their opponents. The use of dice and cards introduces an element of luck that can change the game's outcome at any moment, making each playthrough fresh and engaging for the players.
- Competition:
 - Similar to Scotland Yard, Sonar, and Stratego.
- What's unique about your game?
 - Cat Nap stands out because it really makes you feel like you're in the game, with special roles and strategies for the cat and the mice. Mice players work together, which is different from most games where everyone plays for themselves. The game's setting in a house makes it feel close to home and more engaging.

Ideal Play Session

Players will first decide which player will be the cat, and the rest will each be a mouse. The players then draw a map card and set up the map accordingly. The cat will then turn around and the mice will place their token under a certain tile. While the cat is still turned around, the mice will each roll a dice and move tiles based on the number rolled. When the mice move their tokens to the new locations, they place their token under that tile. After each mouse has moved, it is the cat's turn. The cat will turn around and place their cat token on a tile in the end row. The cat then rolls both dice and moves according to that roll. After landing on a tile the cat will reveal

the tile they landed on as well as the 4 adjacent tiles, and any mice revealed by this are caught. After the cat finishes their turn it returns to the mice, but for the rest of the game the cat takes their turn after only two mice, not all four mice. Throughout the game, players will be able to earn cards that will help them in achieving their goals. Mice can use cards that allow them to move more tiles or avoid capture, and the cat can use cards to reveal more mice or set traps. When the mice have collectively lost three lives, the cat wins. If the mice reach each end goal before the cat can deplete their lives, the mice win.

Inspirational Media

Scotland Yard- In Scotland Yard one player plays as Mr. X, traveling around the board while the rest of the players as detectives try to catch him. The detectives only know details about how Mr. X is traveling, not exactly where he is. Inspiration could be taken from the methods used in the game where players are trying to capture another player.



Sonar- Described as an “an underwater game of cat-and-mouse”, Sonar has two teams of 1 or 2 players working to deal damage against each other. There’s a divider between the teams, and as each team moves the other does their best to deduct where they may have moved to. This could be an interesting aspect to consider if we wanted to set up our board in a similar divided way.

Stratego- A capture the flag game from right after WWII where each side has an army of men and bombs and have to do their best to capture the other team's flag. Only you know where on the field your players, bomb and flag are (the pieces look identical on the back, images facing you). It could be another interesting way to set up the board, but would likely limit the amount of players.



Cats and boxes- This game uses a board where there are cats and boxes and “walls” placed in certain areas, then you have to get the cats to the boxes strategically. Single player. The way the board is set up could be inspiration to how our game board is set up.

Cat in the box- This game seems a bit too complicated to describe well without playing it, but the theming of the game is where the inspiration comes from here. The cartoon cat themes and bright colors would fit well with our design, aiming for a family audience.



Other inspirational media: Family cartoons based on cat and mouse chases like Tom and Jerry seem to fit best in our intended audience.

Mood board: A focus on a general audience led to bright colors and cuter theming to appeal more to kids. *Catnapped is not the actual name, just a filler to help get the mood of the game across better.



Mechanics

The mechanics primarily depend on a limitation of shared information. A primary player, the cat, is left in the dark, as the details of the locations of the mice are obfuscated from their view, with the game depending on the notable 'Fog of War' mechanic. This is coupled with the turn-based gameplay, where the mice players are given freedom to move based on a dice roll and cards drawn. This presents an asymmetrical game structure, where players are united against a common enemy with a goal: winning the game. The game relies on both skill and chance, with the chance element coming from the dice roll, and the skill aspect in the ability for the cat player

List of Choices

1. Players must decide whether to use a card on their turn or not.
2. Players must decide where they will go on the board.
3. The cat must choose which tile to check after it ends its movement

List of Uncertainties

1. Roll of the dice: players do not know how far they will be able to move, since the dice are random.
2. Which card is picked: The cards are shuffled in setup, so players will not know what cards they will acquire.
3. Other players: Players cannot know for sure what the other side will do, so some chance or uncertainty will result.

Playtests

We conducted multiple rounds of playtesting for various versions of the prototype game. After each playtest, we received feedback and used suggestions from the users to improve after each round. For some, we experimented by altering balancing and player power. A summary of the results can be found below:

Player Experience:

- As expected, since a large portion of our audience is experienced in game design, our player base is familiar with board games, though not many are familiar with asymmetrical games like ours

Retention:

- Players generally had interest in playing the game again, albeit with improvements. This solidifies the idea that the central theme and idea are good, and we just need to tweak.

Understanding:

- Players generally agreed that rules were understandable from the beginning to the end, though there was not a clear consensus on whether or not they were clear or not excessive.
- In terms of confusing rules, throughout the playtest, we received feedback and criticism on multiple, but by the last playtest, we only received feedback from one person critiquing a rule, suggesting that the improvements we made significantly improved the clarity of the rulebook.

Theme:

- Players generally agreed that theming and concepts made sense.

Gameplay:

- There seemed to be variation in the players' understanding of gameplay and their intention throughout the game. Some players seemed unsure of their actions and next steps while others did not. Some also felt restricted by the rules and did not agree that the flow of the game felt smooth.

The feedback we received from the playtests conducted indicates that there is work to be done in terms of honing and refining the game concepts and gameplay. The cat and mouse mechanics

Theming

We decided to incorporate the central theme of the story into the gameplay and board design. The tiles on the board are representative of the 'kitchen tiles' the mice are darting across, in hopes to get to their end goal. Additionally, by allowing the mice to go through walls unhindered,

we are implementing the real life mechanics of mice going through holes in walls, skittering around.

Rules

Objectives

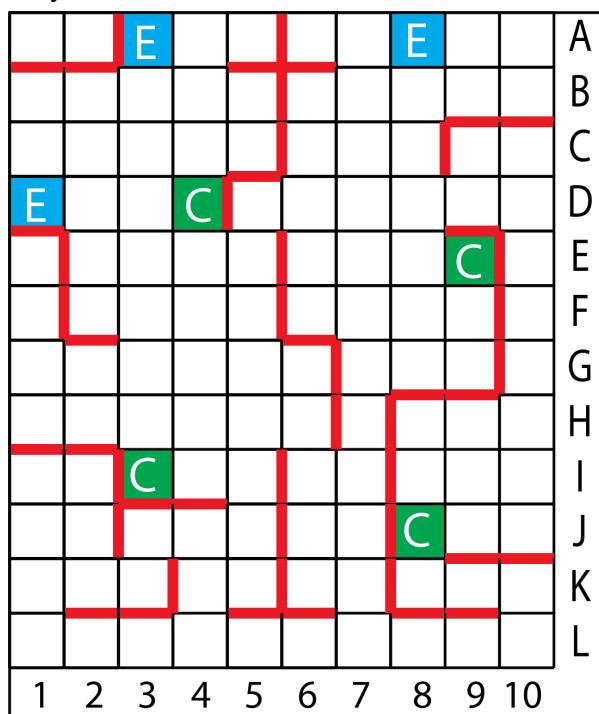
The game ends when either one of the following two objectives are completed

1. If each end goal tile is reached by the mice, the game is over and all mice win the game.
2. If the mice collectively lose 3 lives, the game is over and the cat wins the game.

Setup

Complete these steps to set up the game.

1. Choose one player to be the cat; everyone else is a mouse. If there are less than 4 mice, the tokens are split up so that some players will control multiple mice.
2. Draw a map card and place down walls, card tiles, and end tiles on the game board according to the card.
3. Shuffle the mouse and cat decks and place both next to the game board.
4. Have the cat and mice sit on opposite sides of the board, so that the cat cannot see under the sticky notes.



Example of board set up. Red is walls, green C is card pickup tiles, blue E is end goals for mice.

Order of turns

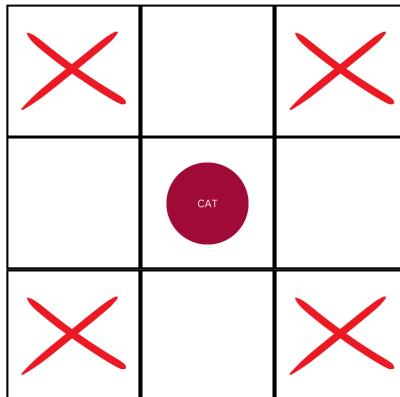
Players take their turns in this order.

1. The cat turns away from the board and the mice start. They can play their turns in any order.
2. Once all the mice have gone, the cat turns to the board and plays their turn.
3. Repeat until the game is over.

What to do on your turn (for both sides)

When it is a player's turn, they should follow these steps.

1. If the player is not yet on the board, place the player token on any tile in the first (row L) or last row (row A) of the board, for mice or the cat respectively.
2. The player can play one card from their hand (this may or may not help them).
3. The player rolls one die, and can move up to the number shown. Players Can move from one tile to another adjacent one
 - a. No diagonal movement, and no moving through walls.



- b. Mice cannot finish on the same tile as the cat.
- c. The cat cannot move onto any tile in the first row (row L).
4. *Cat Only:* After moving, check the tile under player token as well and one adjacent tile, player's choice. Catch any mice under these tiles and remove them from the board.

How cards work

1. A player can collect a card by ending their turn on a card tile.
2. Mice must announce to the cat when they collect a card.
3. Any cards played are placed into a discard pile after the turn ends.
4. Cards can only be played by the player who acquired them, during that player's turn.

Balance

Balancing an asymmetrical game in which both teams are very different with unequal amounts of players on each team and differing goals is a big challenge. We have to make sure that not only is the game as fair as possible for each team, but it is also fun for each team. It is hard to find the balance between fair and fun, as making the cat play less is one way we have found to balance out the abilities of the cat but this makes the game very boring as a cat. We currently have it set that the cat will take their turn after two mice have taken theirs in order to allow them to not have to wait so long before being able to play, but this is likely to change as we do more testing and come up with more ideas.

We also want to find the balance between skill and luck. The method we chose for players to be able to move is by rolling dice. Using only dice for this makes it more luck based as the player's move relies completely on how good the roll is. We wanted there to be more opportunities for skill-based play, so we added cards for both the mice and the cats to use to improve their movement ability as well as other abilities.

Game Space

The game board represents the floor designed as a rectangular grid of tiles (A to L rows and 1 to 10 columns). Each tile represents a possible location where mice and the cat can move, hide, or interact with game elements like traps or cards.

Seating and Physical Setup:

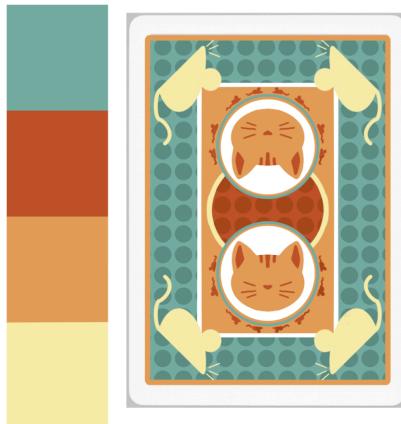
To support the hidden-information mechanic and role-based immersion of the game, players are seated strategically around the board:

The Cat player is always seated on the side of the board corresponding to the cat's starting position. This is considered the "top" of the board. The cat begins off the board and enters from this row, mirroring the perspective of a cat stalking from a distance.

Mouse players sit opposite the cat, near the first row, where mice enter the board. This arrangement allows strategic collaboration, as mice may whisper and plan without the cat seeing the board clearly when turned away.

During setup, once the cat role is assigned, the cat player physically sits last, taking their place at the head of the board. This means the cat turns its back while the mice make their moves, fitting the theme "when the cat's away, the mice will play." Once mice are finished moving, the cat turns back around and takes their turn.

Look and Feel



Ideally things would be a bit more organized, with a clear place to put extra unused pieces. Not shown in the image are the mice pieces, starting under the green sticky notes on the right side of the board. The cat would start on a tile on the right side.

Expected Development Costs

Create Your Custom Board Game

Use the interactive form below to submit your custom board game quote.

Game Components	Your Game Components
Game Board	Board
Game Pieces	Mouse signifiers
Dice	Mouse tokens
Cards	
Punch-out Sheet	Dice
Tiles	Cards
Screens	Wall Tiles
Note Pads	Instructions
Playmat	Map cards
Instructions	Cat Token

Packaging Options	Your Packaging
Outer Box	Outer Box
Bags	

Quantity	2000
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Shipping Destination State	NY
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Calculate

\$11.75

Estimate - Cat Nap

This Selection comes from a curated list of commonly used components. Panda can make most components in any custom size. Please contact us for a more detailed [Quote](#).

QTY	COMPONENT
1	Box 2 305 x 223 x 43mm 1.5mm cardboard (Pandemic)
1	Game Board 2 580 x 416mm 1/4 fold 2mm cardboard (fits in Pandemic box)
1	Paper Booklet 1 216 x 279mm 16 pages
6	Paper Sheet 1 216 x 279mm
20	Cards (Blackjack) 83 x 88mm 300gsm bluecore
70	Cards (Mini Square) 51 x 51mm 300gsm bluecore
2	Dice standard D6 14mm acrylic
4	Wooden Disc 15 x 15 x 4mm
1	Wooden Meeple 16 x 16 x 10mm
4	Plastic Miniatures 45mm height x 25mm diameter 1 unique sculpt single-piece
	Assembly & QC

PRICE PER UNIT \$6.45 \$5.64 \$4.91 \$4.19 \$5058

ORDER QTY 2000 3000 5000 10000 Tooling

\$ Breakdown

Save

We update our prices(USD) periodically to reflect the latest material costs and exchange rates.
Check back in the future for the latest estimate for your game.

\$6.45

Game Quote: Cat Nap

Select product categories from the tabs on the right. The prices are only examples as every product is configurable and as such may cost more or less than what is displayed here. Click through to an individual product for more details. This online quoter only handles single games, it will not do embedded games.

Boards	Quote
Books	Game cost: \$95.84
Cards	
Dials	
Mats	
Packaging	
Parts	
Punchouts	
Score Pads	
Screens	
Stickers	
Surfacing	
Quote	

\$52.49

Pictured above are quotes from three different websites with estimated costs for manufacturing our game, not including shipping. I was unable to find very accurate results as these websites were somewhat limited on the options available, but I found alternatives that were as close as possible. Because our board is constructed in a way that none of these websites provided and other parts of our game are not available to choose from, these costs likely are not accurate. Each of these websites also gave very different prices, making it very difficult to figure out an accurate price for our game. While the sites do include an “Assembly cost”, this cost is likely inaccurate as our board would require more human work than just a regular flat board. People would be required to attach each of the flippable tiles to the board as well as machining the indents for the walls. Based on the estimated cost from Print Ninja our game would be about \$20.50 to manufacture and ship. If we were to sell this for \$30, we would have a profit margin of about 32%.

Competitive Analysis

Finding information on games that combined a ‘fog of war’ mechanic with an asymmetrical design proved to be difficult, as most games focused on one or the other. As this is the case, I chose to do an analysis of games that fell into either of these categories as well as two games that fit into both.

Popular ‘fog of war’ games include ‘Stratego’ (1946), ‘Sonar’ (2017), and ‘Root’ (2018). They each have mechanics that hide information from players, and their designs include team work and opposing sides. The uniformity ends there, however, as their ratings are less predictable. Users seem to enjoy Root more, with a 8.1/10 rating on BoardGameGeek.com. The other two games have a lower rating in the 6 region. Sonar is the least popular, with only 5.5 thousand people reporting to own the game (via BoardGameGeek.com). Stratego follows with 31 thousand, and Root takes the win with 90 thousand. These metrics somewhat balance out when you take their difficulty rating into account, with Sonar and Stratego not reaching a 2/5, and Root at the cusp of a 4. It seems in ‘fog of war’ games, players favour a denser and richer gameplay experience, with lots of rules and complexities.

A lot of asymmetrical games focus on opposing teams of equal sizes or unique character profiles for each player. There are a select few, however, that have the same model as our game, a 1 v everyone else design. Such games are ‘Mr. Jack’ (2006) and ‘Fury of Dracula’ (2005). Both games are pretty lowly rated complexity wise, with neither of them passing the 2 out of 5 mark. Their average ratings are around 7, which suggests that the asymmetrical nature of the game is appealing enough to audiences without the need to complicate it further. A reported 10 thousand people own Dracula on BoardGameGeek.com and 25 thousand own Mr. Jack.

Finally, games that include both aspects of ‘CatNap’, asymmetrical design and ‘fog of war’ mechanics, are exemplified by ‘Scotland Yard’ (1983) and ‘Ninja: Legend of the Scorpion Clan’ (2011). Both games are rated below average, with average ratings of 6.5 each. If we are taking BoardGameGeek seriously, they have low unit sales/popularity compared to the other games,

with 30 thousand and 1.2 thousand people owning the games, respectively. Complexity wise, Ninja takes the cake with 2.65 and Scotland Yard is rated 1.94.

It seems that one or the other is more popular with audiences, though most of these games came out a while ago, with two coming out in a previous century. CatNap succeeds in this regard as it is newer, and has had more ‘mentors’ to borrow ideas from. A fog of war game can do well, as evidenced by Root. Asymmetrical games also perform well with audiences, as ratings are high despite simplicity. It is our hope that CatNap combines both aspects of these game designs and thus inherits the ratings and sales of well performing games.

Future Work (Camille)

In order to further work on the game, there would be a few things that need to be done. As far as gameplay, the main thing to work on would be coming up with additional cat and mouse cards and creating them in a more professional way. As of right now there are only just above the bare minimum needed to play through the game. Having a wider variety of cards (and also just more copies of the cards we have) would be strategically done to balance the game even further. As well as adding more cards, we would also want to finalize their design as game cards, and not just words written on notecards. A lot of playtesting would need to be done to ensure we can work to make the game as balanced as possible before its finalized state, as that was something we struggled with a lot throughout the semester.

We would also need to design final game pieces and a final board design. Right now the mice are just prototypes and the cat is a borrowed game piece, so we would need to discuss how we want our game pieces to look and how we would get them professionally made. The same goes for the board which is also just a prototype without any theming. Ideally, it would be designed to look like a kitchen or a pantry or something similar to fit the theme. Asides from how it will look, we would also need to discuss how we could make our unusual board and wall mechanics into something that could be mass produced easily. Maybe something like a guess who board with little divots to put the mice pieces, with sturdier walls (plastic probably). The rules also need to be formatted in a more professional and visually appealing way, making them more resemble the rules you would see in a typical board game. The last thing to do would be finalizing the game box design and how we would want to store all the pieces within the box in a smart and convenient way.

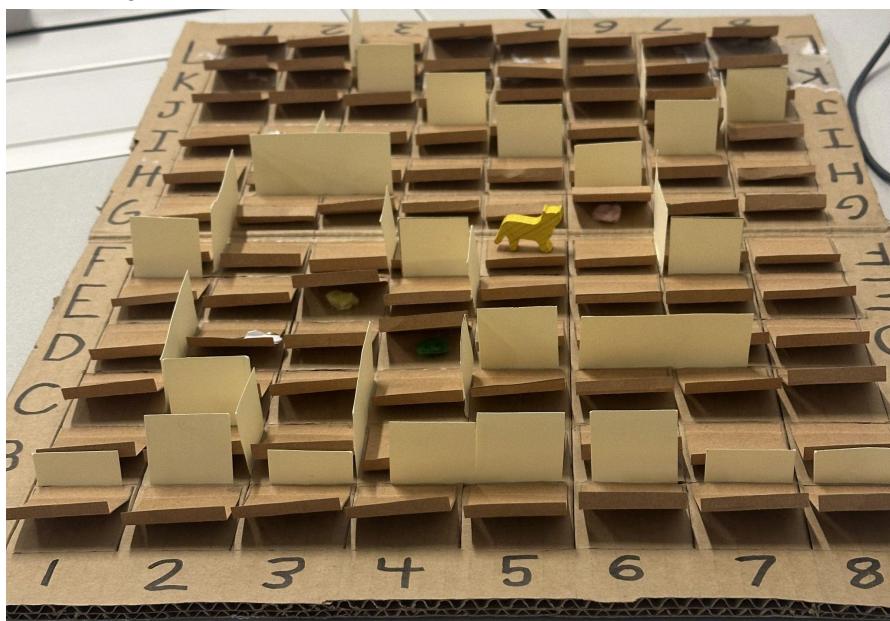
Appendices:

Game Components

Board:



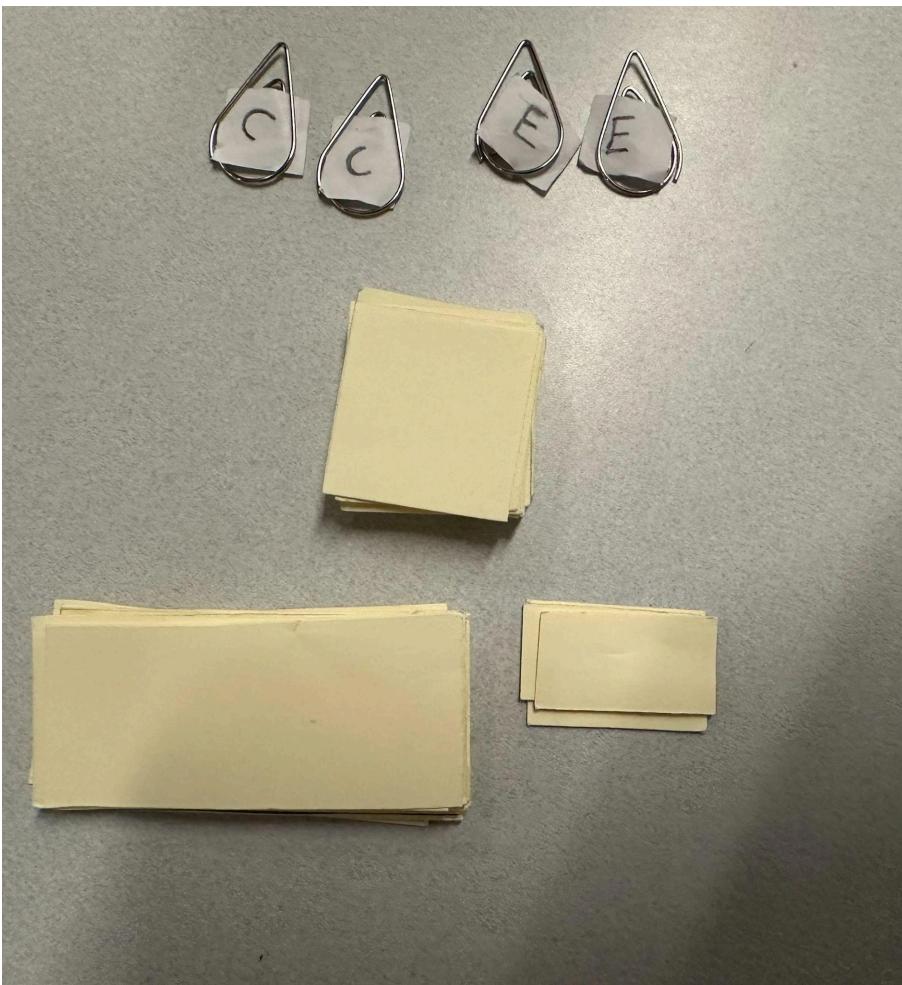
GamePlay:



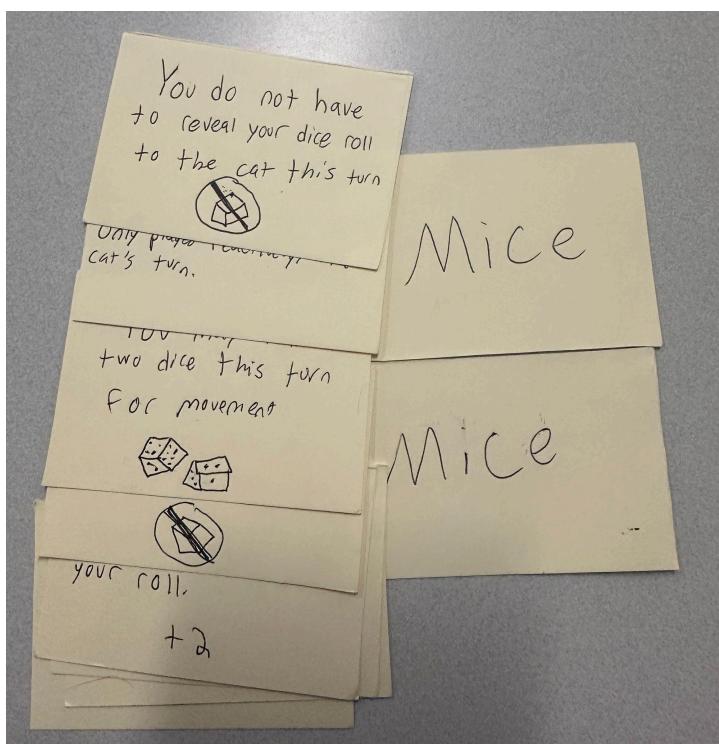
Meeples of Cat/Mouse:



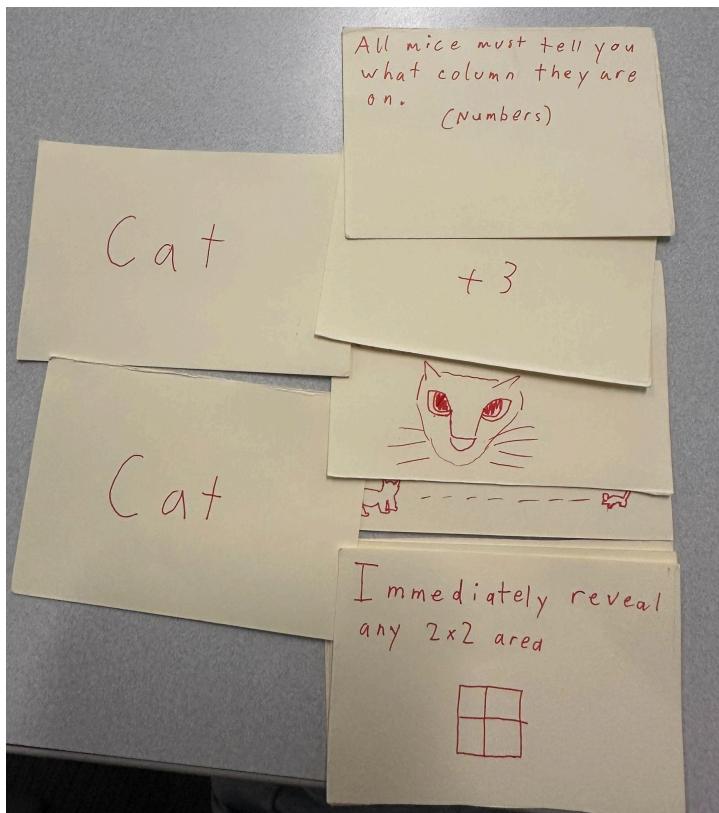
Walls of different size and Card Pick Up / End Tokens:



Mouse Cards:



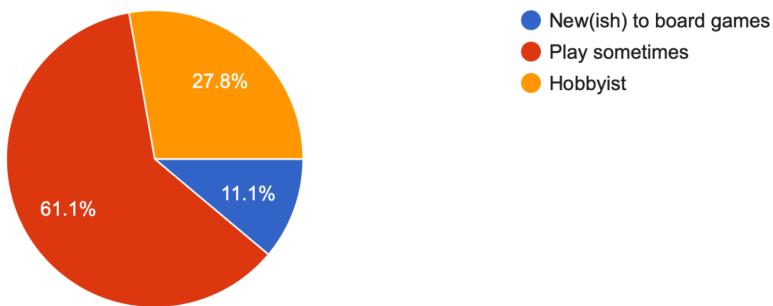
Cat Cards:



Playtest Responses:

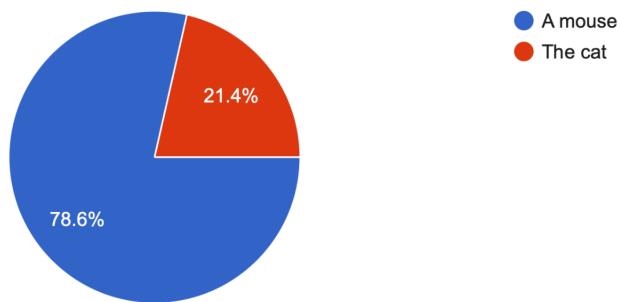
What's your player experience?

18 responses



What role did you play?

14 responses



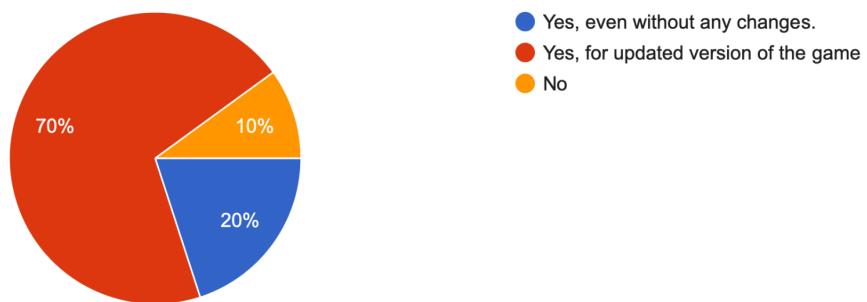
Have you played a game similar to this before? If yes, please type the name of the game in "Other..."

18 responses



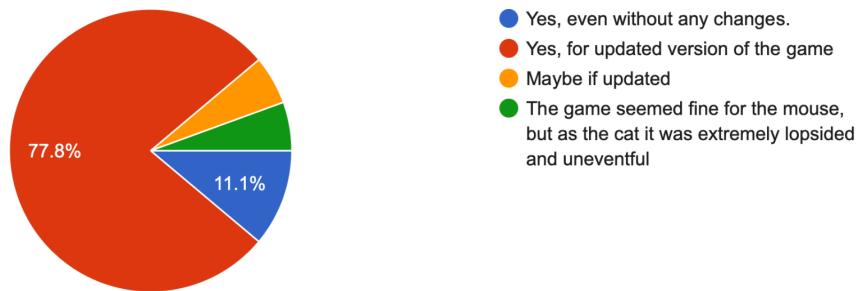
Would you be interested in playing again?

18 responses



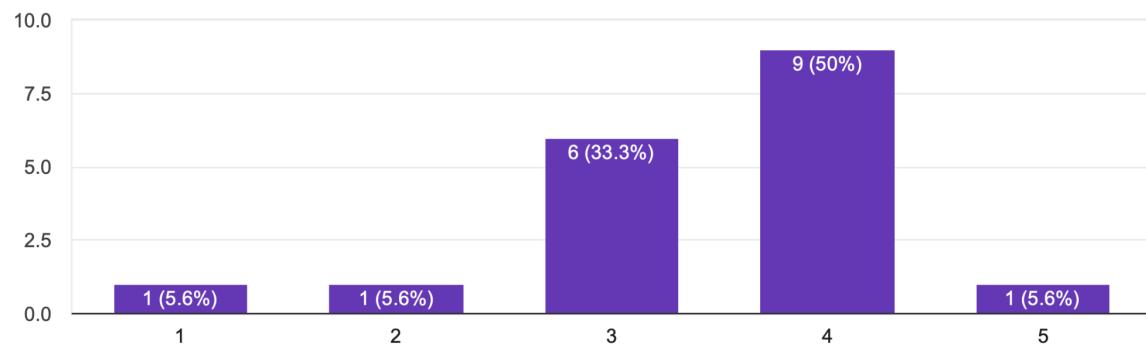
Would you recommend this game to a friend? If no, type out why please

18 responses



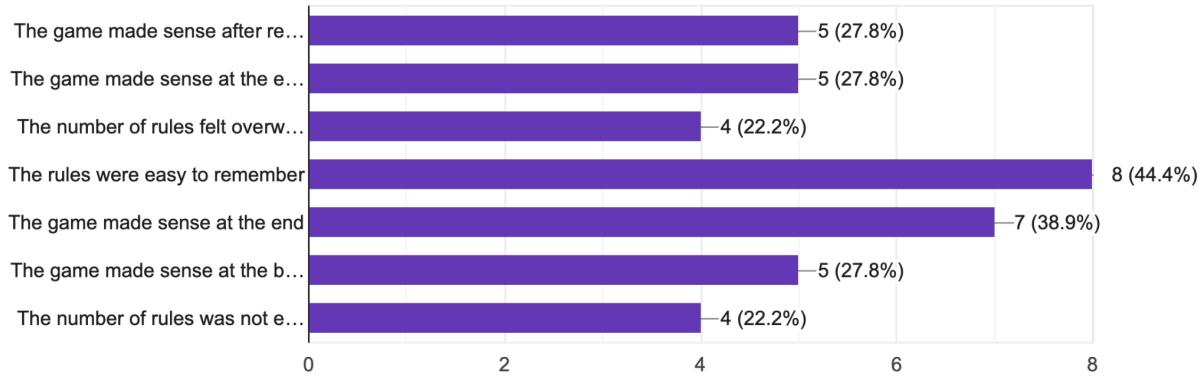
How much did you enjoy the game overall?

18 responses



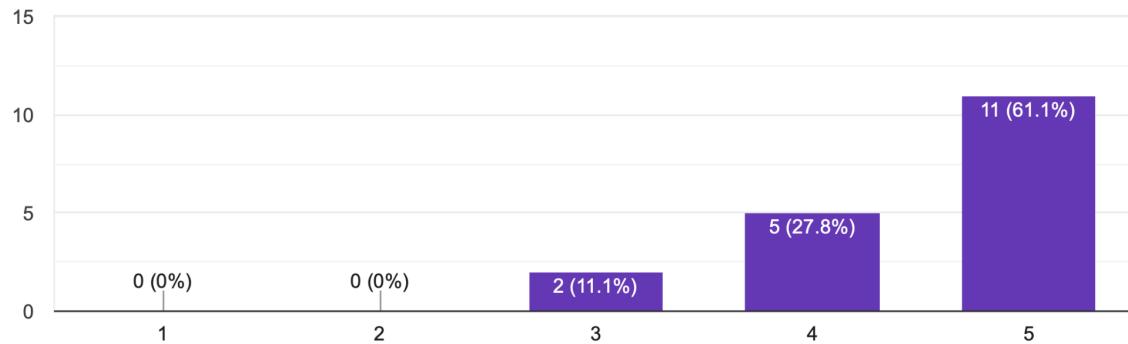
Select as many true statements about the game rules

18 responses



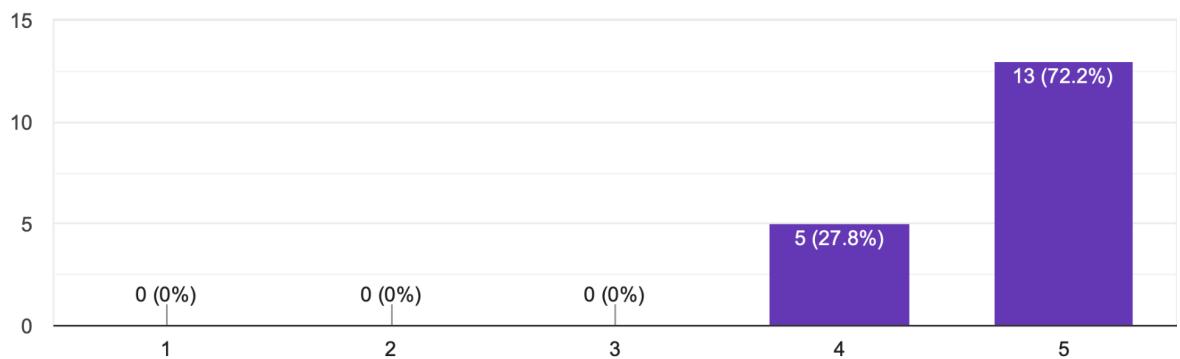
I enjoyed the theming of the game

18 responses



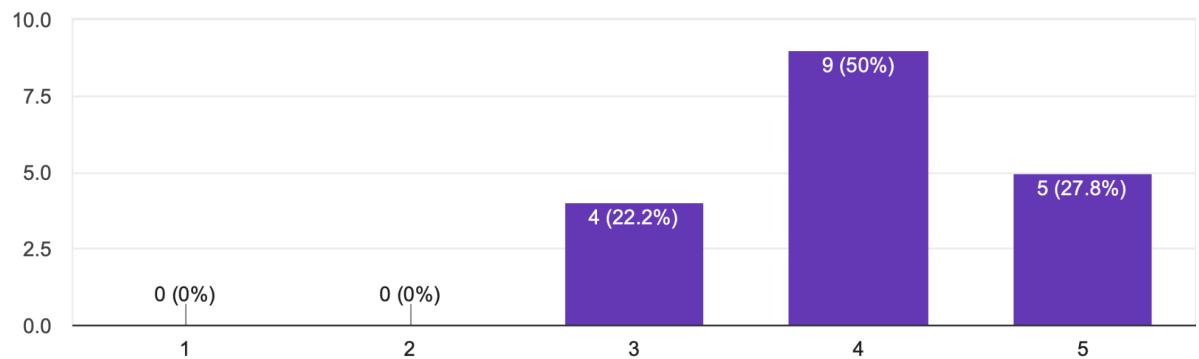
The gameplay felt reflective of the theme

18 responses



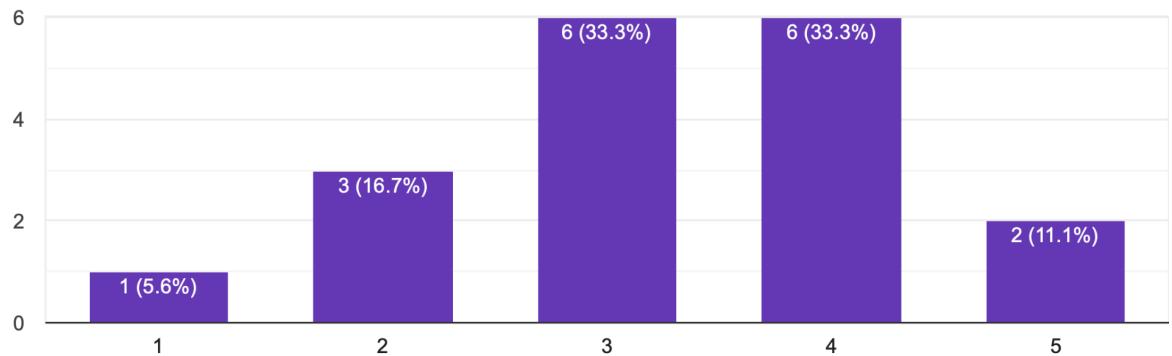
The concepts were interesting (mechanics, interactions, etc)

18 responses



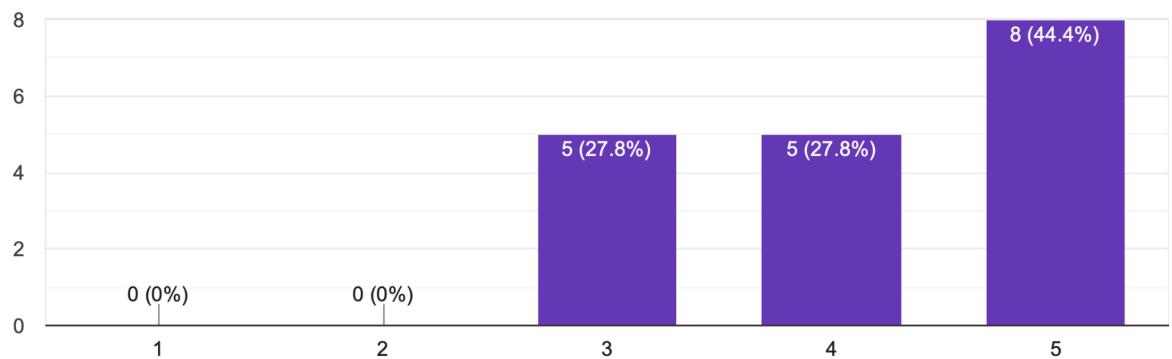
My decisions felt meaningful and impacted the results

18 responses



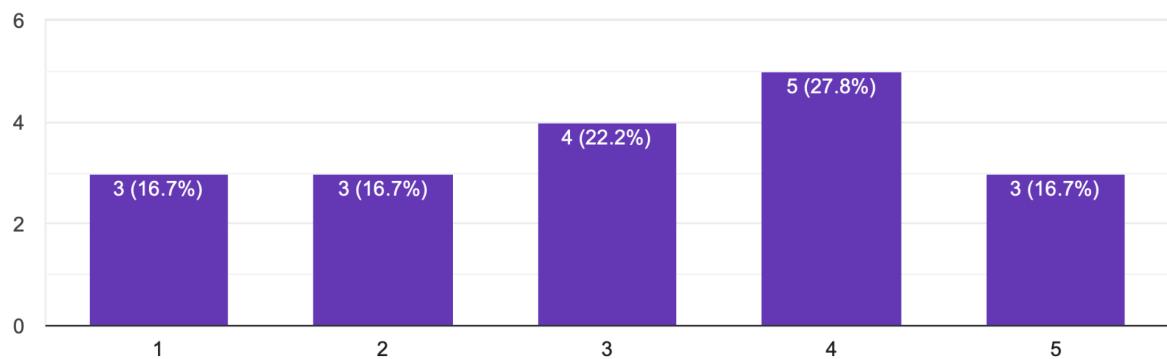
I had a good idea of what my goals were and how I could reach them

18 responses



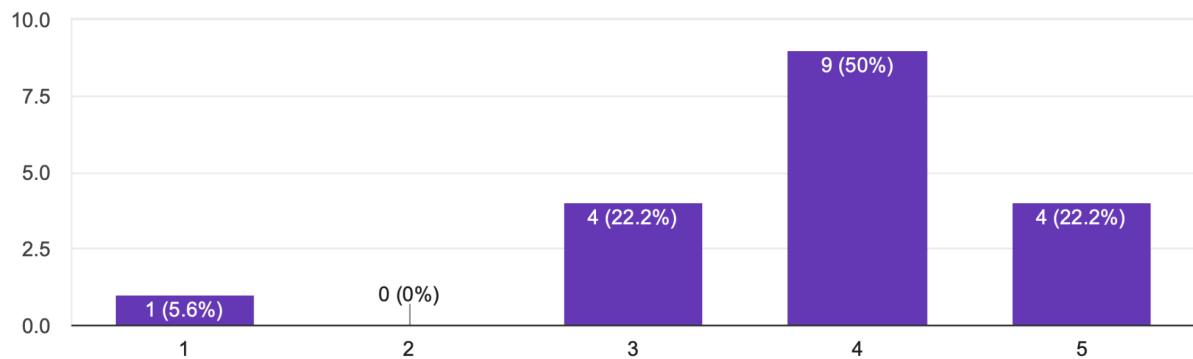
I felt restricted by the rules

18 responses



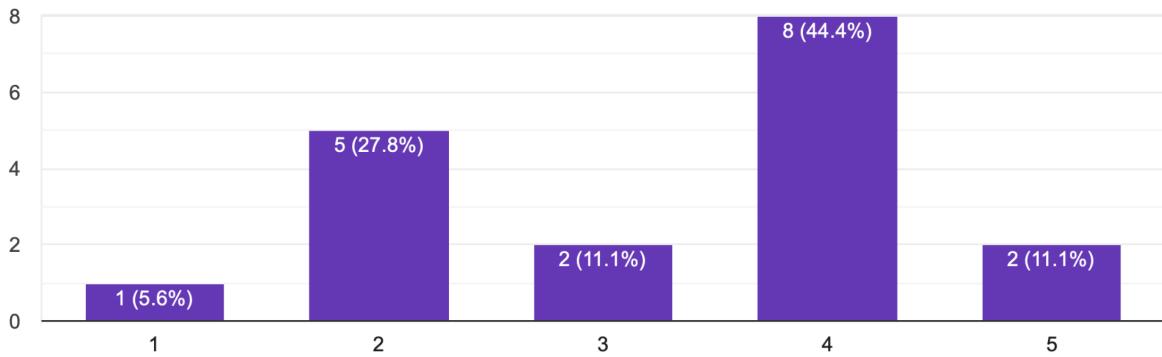
I could tell what other players were trying to do

18 responses



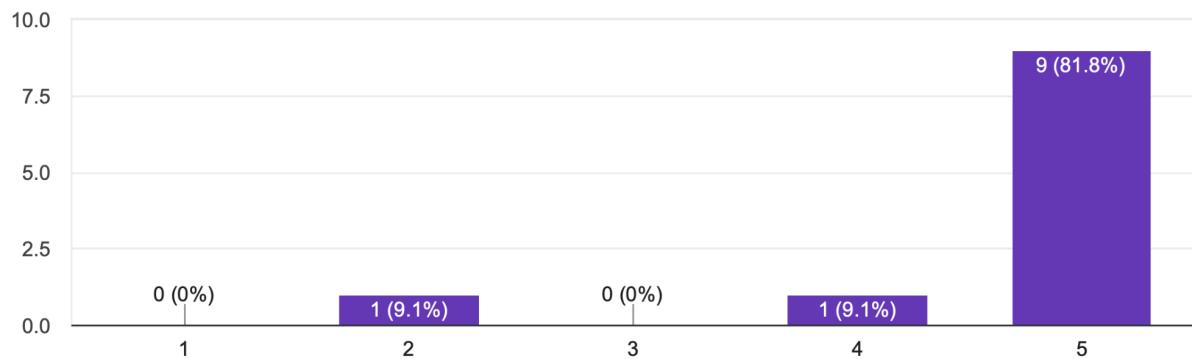
The flow of the game felt smooth; there were no long periods of waiting or times I got disinterested when It wasn't my turn

18 responses



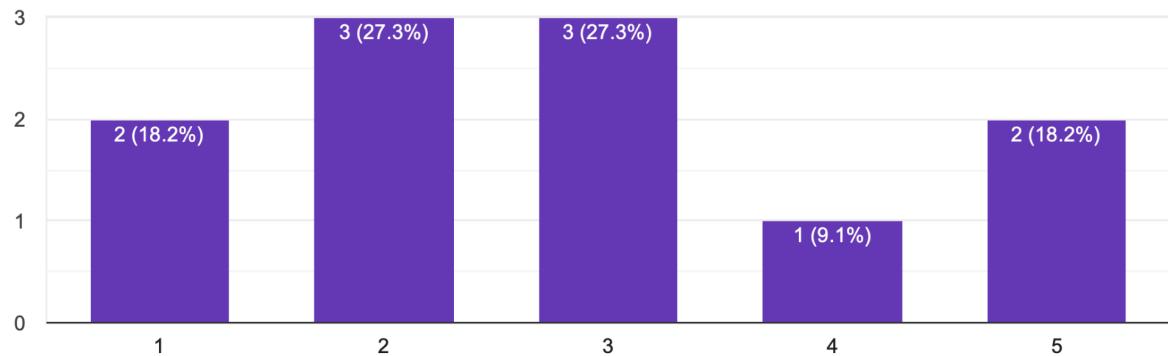
Who did it feel like the game favored to win? (Who would win more often)

11 responses



I found the cards useful and sought them out

11 responses



Other/Written Reponses: [+ CatNaps CrashTest Form \(Responses\)](#)