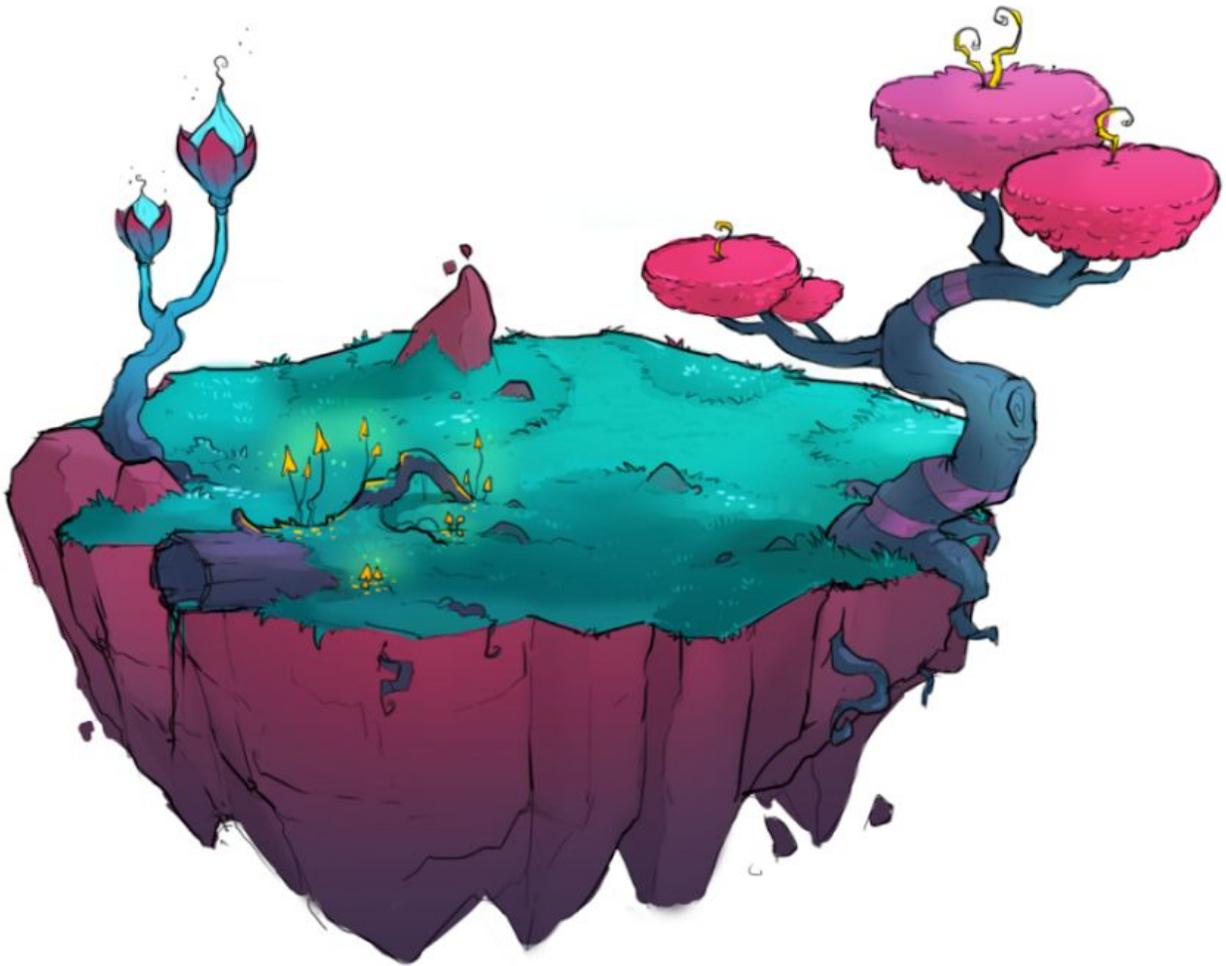


# DESIGN DOCUMENT

BEAT BATTEN TEAM 5



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# INTRODUCTION

In this game you play as a child who is born with Batten disease.

Your bodily functions are declining but your imagination remains strong. As a child, your way of dealing with having a chronic disease is to rationalize it, so fighting it makes more sense to you. It allows you to focus your fighting will into a way of fighting the disease in your head.

You imagine that your parents and everyone who helps you are guardians. The disease has taken a monstrous shape in your imagination. You no longer see your days as others see them but as fights between good vs evil.

You fight the disease by showing it that you can make it through the day without the disease tiring you out before you reach your goal.

# GAME PURPOSE & USP

This game is designed and developed for the purpose of raising awareness about the Batten disease.

# HIGH LEVEL CONCEPT

## Gameplay

2 players start a match and are assigned to a side. Both see themselves as the child with guardian angel helpers. Both see the other as the Batten monster with Batten symptom minions.

The game is played in turns with a short maximum turn time.

Each match has a 5 minute time limit.

All gameplay is played in a grid / on tiles.

The goal of each player is to reach the goal on other end of the level with their main character.

Players do this by using movement cards on their characters. Movement can be applied to the main character and helpers.

Players can use spawn cards to spawn helpers for themselves. Helpers can only be spawned within a small range from the main character.

Players can defend themselves with magic action cards. Magic action cards can be applied to the main character and helpers. Magic defeats opponent helpers and tires the opponent main character. Both see their own magic actions as magic but each other's magic actions are visualised as batten symptoms.

Cards cost card points of which the player has 10 every turn and are shown in a bar under the cards.

The player taps a highlighted tile to use the functionality of the applied card.

The main characters can't stand next to each other, similar to the kings in chess.

Players win by reaching the end goal tile with their main character or reducing the other's main character energy to zero.

Both players lose if neither player has reached their goal before the match timer ends.

Players receive experience points which in turn increases their level. Leveling increases the personal contribution of the player. The personal contribution of all players' personal contribution in the game is added to a global contribution stat.

## Fun

Our concept is designed to be fun by definition, using the Jesse Schell definition of fun "Pleasure with surprises".

Our card input system is inspired by other games because it's a proven enjoyable and juicy input system.

Surprises are experienced when players use tactics and cognition to increase their chance of reaching their goal.

## Game progression outside of game loop

The player is rewarded "experience points" after each round.

The experience builds up to levels.

By leveling you increase your personal contribution of fighting Batten disease.

Your personal progress is added to the global progress of fighting the whole Batten disease monster.

Experience → Levels → Personal contribution → Global progress.

## Awareness

The awareness message will be conveyed through the tutorial level narrative. The message is that Batten disease is a very real and serious issue.

At the end of the tutorial the child dies to strongly convey the message using the player's empathy.

## Target audience

Men and women in the age range between 25 and 35.

This target audience is best aligned with the goal of the game of raising awareness.

A high percentage of the people in this target audience have a disposable income.

Most of them are either planning to have or do have (young) children.

They care most about or are likely perceptible to care about real world issues regarding diseases affecting children, which qualifies them to have the greatest empathy for children with Batten.

The target audience includes the largest group of casual gamers.

The target audience will be reached more easily because the game is specifically developed for mobile with a free to play go-to-market-strategy.

# VISUAL STYLE

## Theme

The game is set in the imagination of a child with Batten disease.

## Environment



Environment from the game "League of Legends"

## Environment Setting

The environment is designed to give a magical fantasy feeling. Floating islands are recognisable to players as a fantasy setting.



# Characters



From left to right: Batten monster, Batten minion, guardian, child.

There are 2 categories of characters: the main player character and helpers.

Both character categories can have movement and action cards applied to them.

All characters have “energy”, this represents their health/physical well being. The main character has an energy pool that allows the main character to stay functional and available even after being affected by the disease.

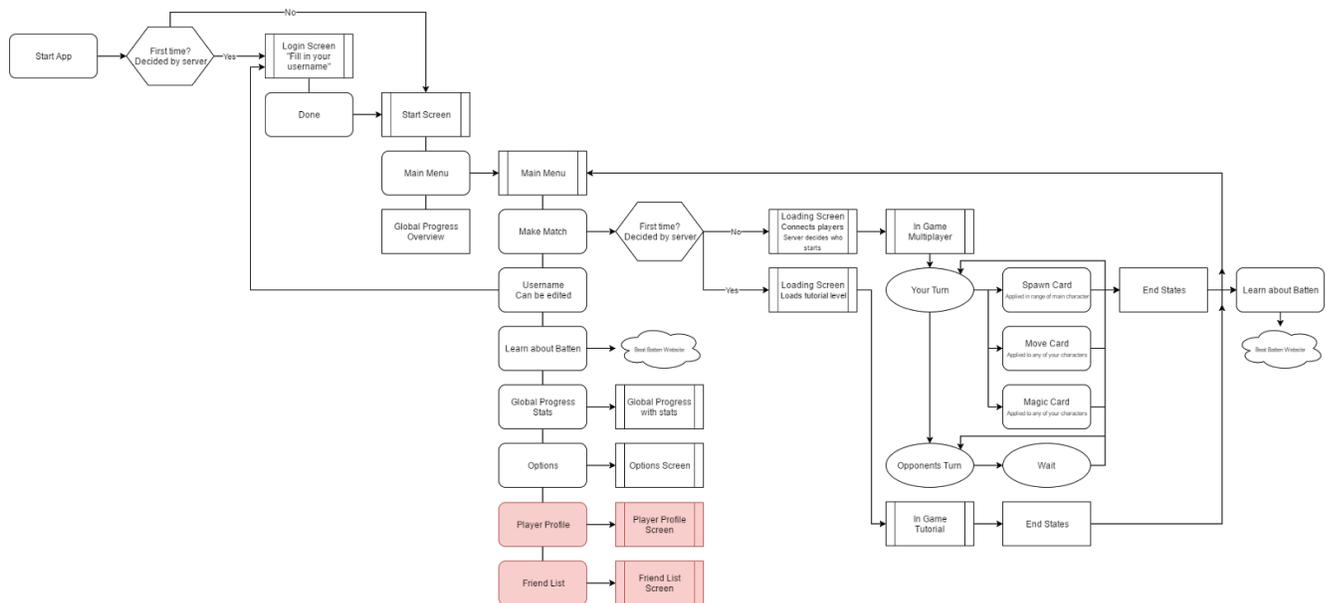
The helper characters don't have energy or health and are defeated after one attack.

# HIGH LEVEL MECHANICS

- Turns
  - The game chooses one of the two players to start their turn first
  - A player has to wait with playing when it's the other player's turn
  - A player can do as many actions as their card points allow them
  - Players can end their turn manually before the turn timer runs out
- Cards
  - Spawn  
Players can spawn helpers by dragging a spawn card to a tile within the spawn range of their main character. This spawns a specialized helper
  - Move  
Players can drag a move card onto one of their characters and drag out a path for the amount of tiles specified by the card
  - Magic  
Players can drag a magic action card onto their characters, then tap on an enemy character who is in range of the character with the applied magic action to use the magic on them
  - Cards cost card points of which the player has 10 every turn and are shown in a bar under the cards
- Helper types and debuffs
  - The helpers have three specializations
  - Loss of sight/ blindness
    - The turn timer of the player with the debuff is visually obscured for the turn
  - Impaired movement
    - Movement has a higher card cost
  - Dementia
    - Cards get flipped around, so the player does not know what card they are picking from just dragging it out
- Win conditions
  - Reach the other end of the level within the time limit before your opponent
  - Reduce your opponent's energy to zero before yours is zero
- Lose conditions
  - You lose when your opponent wins
  - Both players lose when the match timer has run out before either play has won

# LOW LEVEL MECHANICS

## User Interface



### Start Screen

The start screen is the first thing you see when you start up the game. The start screen is not the main menu, it serves a different function. The start screen makes the player excited to play and conveys part of the user experience. In our game the player will feel bittersweet about helping patients fight the Batten disease.

The start screen will only have one button that is to continue to the main menu of our game.

Our start screen features a unique function of telling the player the global progress of the money raised by the game and the research funded by it. It doesn't have a lot of details in this location but those can be found in the global progress menu of the main menu.



## Main Menu

The main menu offers a number of buttons to go to different screens that all provide different information and functionality.

### Player profile

The player profile screen contains all user information and details. Here you can see your level, your cards and your win lose ratio.

### Friend list

When you connect the game to your social media, your friends from there can be accessed in this screen. You can share and play the game with them by selecting one from the list and choosing to either join or to create a match.

### Global progress

This is the screen where you can view the global progress of the money that has been raised by the game and the research that has been funded by it. It has more information than the global progress on the start menu with information about the disease, the patients and the research.

### Options

This is the options menu where the quality of the game can be changed and some other options.

### Beat Batten

This is a button that opens the web page of the Beat Batten organisation.

## Loading Screen

The loading screen is a recurring part of UI that can be modularly used when needed. It shows to the player that the game is loading without taking the player out of the game's user experience.

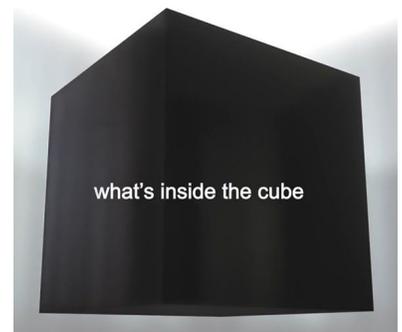
## In Game

### Cards

The cards in this game are UI elements that have animations and effects to make their functionality look really juicy. There are 3 types of cards in the core game: movement, magic and spawning.

### Card points bar

This is a bar that shows how much points you have available for using cards.



#### Match timer

A timer that counts down from five minutes to zero because each match is limited to 5 minutes.

#### Turn timer

Each turn the player is limited to less than a minute of time to perform their actions.

#### End turn button

The player can press this button to end their turn before their turn timer has run out. This has a tactical advantage of taking away time of the opponent they could use to think about their upcoming actions.

#### Energy bar main characters

This is the visual representation of the “health” of the main characters. It’s called energy or stamina because when a main character’s energy is depleted, they faint and not die.

#### Win and loss screens

After a player wins, that player is shown a victory screen. The player who lost is shown the loss screen. Both have buttons which link to the Beat Batten web page, and both have buttons to return to the main menu.

#### Persistent health bar

This is a feature that would be in the game if also leveling rewards would be designed and implemented. The goal of the feature is to increase the difficulty of the game when players would play the game for a long time.

Only energy is affected by the disease attacks. This regenerates between games up to the amount of max health.

Health is affected per game you play, if you win then you only lose a bit of max health which is 1:1 with max energy. If you lose then you lose more health and max energy.

Health doesn’t ever regenerate but never fully depletes so players never have to start over.

The minimal health and energy amount is 1.

# Input and Feedback

Navigate menus by tapping UI buttons.

The level is grid (tile) based.

Drag cards to characters / tiles to apply their functionality.

Tap and drag to move your camera in the game.

Drag a path from a character that has a movement card applied, to a tile within range to move that character.

Tap on a tile in the range of a character that has an action card applied to it to use magic with that character on an enemy.

# Turn Based Multiplayer

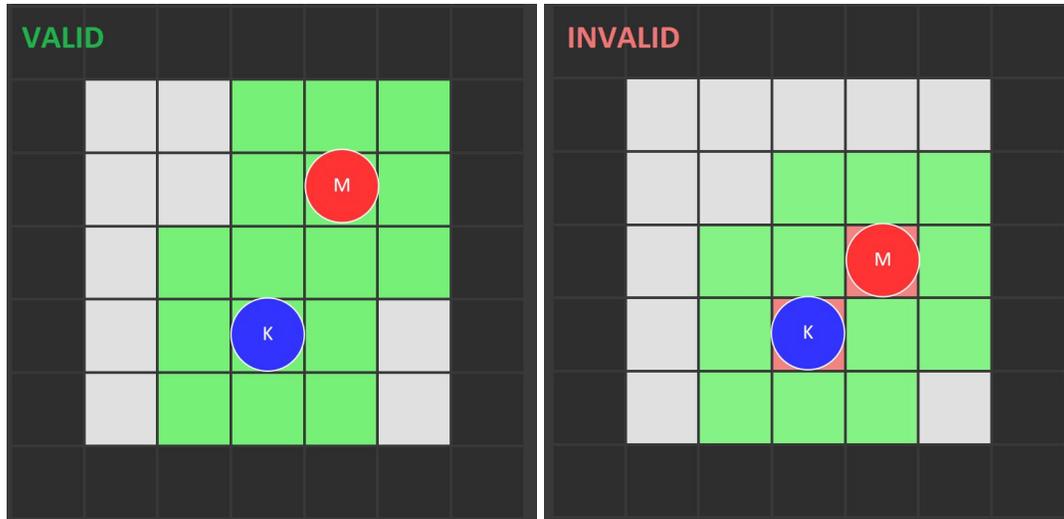
- It's player A's turn, player B waits.
- Player A can drag cards and apply their functionality within the turn time.
- This continues until player A's turn is over.
- Players can end their turn before the time runs out.
- Player B's turn functions the same and the cycle repeats until either player wins or the match timer runs out.

# Cards

## Movement

The characters can move according to the movement cards applied to them. They can only move to valid, empty tiles. They cannot move to blocked tiles or tiles already occupied by another character. The character can move for the indicated amount of tiles on the card, but can also choose to preemptively stop moving, before moving the maximum amount of tiles as indicated by the card. The player can move multiple times in a turn, in the case of multiple cards being used.

The two main characters in the game (Batten monster and child) cannot stand next to each other. Neither perpendicular nor diagonally. In essence, there is a 1 tile radius around each character that either cannot enter. The radii can overlap however. An example is given in the following images, where the M is the batten monster and the K the child.



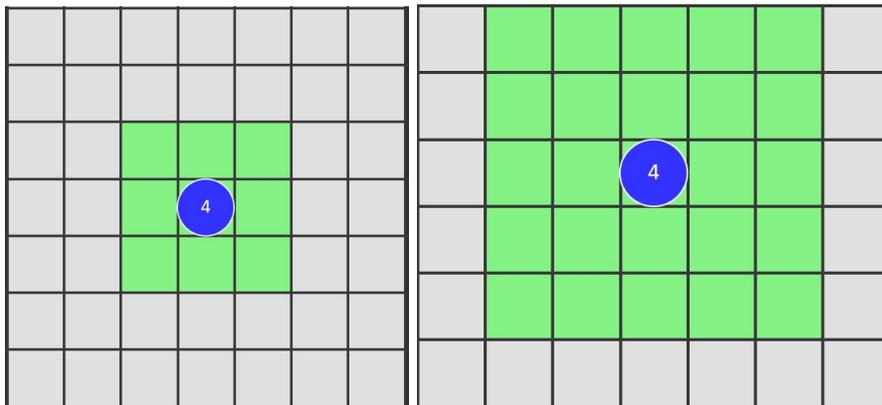
When a movement card is applied and the player comes near the other main character, there will be no option to move to any tiles nearby. This will be indicated through visual effect.

Movement cards display a value which indicates the amount of tiles a character can move when applying this card.

Also displays card cost.

## Spawning

Players can use a spawning card to spawn a minion around the main character. This can only be done on valid and non-occupied tiles. The range is based on the card, which is either 1 or 2 tiles, including diagonal tiles. You can see the ranges in the images below. Green tiles are valid positions for spawning minions. You can spawn multiple minions in a turn in the case of multiple cards being used.



There are three types of cards: moving, spawning and attacking. Players will have 3 cards at any given time, one of each type. Once a player uses a card, they will receive a new one of the same type. The variables will vary randomly, with more and less rare cards. This means, the

designers will be able to set the value of rarity. "0.2" rarity would mean a 20% chance of receiving that card. Within every type, the rarity of all cards should round up to 100%.

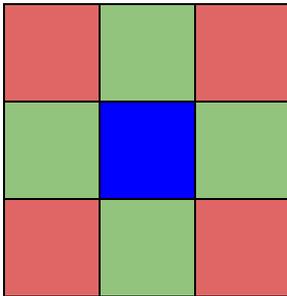
Spawning cards display a value which indicates the range in which a minion can be spawned. This range is from the main player characters.

Spawning cards also display the type of debuff that it will apply to the enemy (blindness, dementia, impaired movement).

Also displays card cost.

## Magic

Due to the limitation of movement, the main characters will never be able to use magic on each other. They are able to use magic on minions. This can only be done when a minion is directly next to the main character. This means on a tile directly perpendicular to the tile the main character is standing on. Thus, attacks **cannot** be performed diagonally or from a distance.



Attacking is done through cards. Once you drag an attack card on the main character, you can attack a single enemy that is within range. You can attack multiple times in a turn in the case of multiple cards being used.

Magic action cards display only the card cost value, using magic always only drains one energy from the opponent or defeats a helper with one use.

## Card Points

Using cards costs card points. The functionality variable of a card affects the card cost, lower functionality is lower cost.

## Applying Cards

Movement and attacking cards are applied by dragging them onto characters. Spawning cards are the exception, as these will only allow you to spawn a minion around the main character.

For that reason, you can drag the card directly to the tile where one would like to spawn the minion.

## Helper types and Debuffs

The helpers have three specializations with matching debuffs which they apply for one turn when the player uses a magic card using a helper on the opponent main character.

### Loss of sight / blindness

The turn timer of the player with the debuff is visually obscured.

### Impaired movement

Movement has a higher card cost.

### Dementia

Cards get flipped over, so the player does not know what card they are picking by just dragging it out.

## Win and Lose Conditions

### Win conditions

Reach the other end of the level within the time limit before your opponent.  
The end goal is a single tile, the tile the opponent spawns on.

Reduce your opponent's energy to zero before yours is zero.  
Both main characters have energy and is drained with magic attacks.

### Lose conditions

You lose when your opponent wins.

Both players lose when the match timer has run out before either play has won.  
This is to motivate players to use tactics in order to achieve their goals.

## Energy and Persistent Health

The main character has stamina and health  
Stamina is the only bar affected by the disease attacks  
This regenerates between games up to the amount of max health

Health is affected per game you play, if you win then you only lose a bit of max health which is 1:1 with max stamina. If you lose then you lose more health and max stamina.  
Health doesn't ever regenerate.

## Global Progress

Game progression outside of game loop

The player is rewarded "experience points" after each round

The experience builds up to levels

Leveling is rewarded with improved card functionality and balanced with lower maximum in-game "health" (energy)

By leveling you increase your personal contribution of fighting a part of the global Batten disease monster

Your personal progress is added to the global progress of fighting the whole Batten disease monster

Experience -> Levels -> Personal contribution -> Global progress

## Mirrored visualization

Player 1

I see myself as the good guy

I see the opponent as Batten bad guys

I defend myself from Batten with magic to slow them down

I see their magic as disease symptoms which slow me down

VS

Player 2

I see myself as the patient

I see the opponent as the disease

I defend myself from the disease with magic to slow them down

I see their magic as disease symptoms which slow me down

# AESTHETICS

- **Sensation (*Game as sense-pleasure*): Player experiences something completely unfamiliar**
  - Almost literally fighting a disease, and making it through the day
  - Experiencing Batten symptoms throughout the game
  - Teaming up with the child to fight Batten together
- **Fantasy (*Game as make-believe*): Imaginary world**
  - The enemies are metaphors for the Batten disease and Batten symptoms
  - Players imagine themselves fighting the disease
- **Narrative (*Game as drama*): A story that drives the player keep coming back**
  - The patient with batten has guardians, who fight the Batten disease
  - The fantasy world and Batten monsters are metaphors for the patient trying to get through the day, fighting the symptoms
- **Challenge (*Game as obstacle course*): Urge to master something. Boosts a game's replayability**
  - The game is very competitive, players face off 1v1 and try to reach their own goal while keeping the other from reaching theirs first
  - Players will have to come up with a strategy and tactics on the fly and implement them right away
- **Fellowship (*Game as social framework*): A community where the player is an active part of it. Almost exclusive for multiplayer games**
  - Players can befriend other players
  - Matches are played against other people (both friends and random people)
- **Discovery (*Game as uncharted territory*): Urge to explore game world**
  - Exploring tactics in the game
  - Learning what symptoms are caused by the disease and how they are represented in the game
- **Expression (*Game as self-discovery*): Own creativity. For example, creating character resembling player's own avatar**
  - Coming up with and implementing strategies
  - Changing strategies and tactics on the fly, improvisation
- **Submission (*Game as pastime*): Connection to the game, as a whole, despite of constraints**
  - Contributing to a greater good, the playerbase trying to beat the big Batten monster
  - Playing quick matches, being really focussed trying to beat the other player

# TUTORIALIZATION / ON-BOARDING

The tutorial for this game is designed to teach players how to play the game and what can happen in the gameplay, but also to use a narrative in order to familiarize the player with the child and other characters. The narrative also creates empathy and the main awareness message.

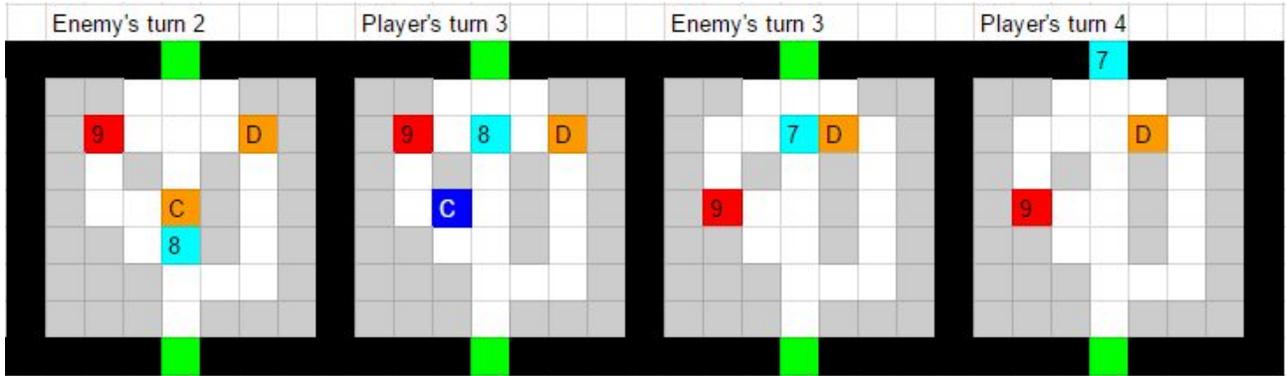
Below is the tutorial layout with how the characters are moved per turn. The descriptions are the chronological moves per turn.

Turn 0 is the start positions and shows the costs used for the cards. The card costs do not match with the main gameplay and the balanced card costs.

In the tutorial the player is only able to make predetermined actions because the input is also part of teaching the game to the player. It is also needed because the specific situations are what create the events that teach the player what can happen.

The narrative content is documented after the tutorial content and has more details about the empathy that is created with the characters in the tutorial level.

Turn 0	Player's turn 1	Enemy's turn 1	Player's turn 2
Max move 3	Move main 2	Attack main 1	Attack main 1
Spawn 1-2	Spawn A 1	Spawn B 1	Move A 3
Attack 1	Move A 2	Move B 2	Attack A 1
	Spawn B 1	Attack B 1	
	Move B 2		
	Attack B 1		



Spawn C	1		Spawn C	1		Move D	1		Move main	2
Move C	2		Attack C	1		Attack D	1			
Attack C	1		Move main	3		Move main	2			
Spawn D	1					Attack main	1			
Move D	2									
Attack D	1									
Move main	3									

Below is the text walkthrough of the tutorial. It contains descriptions of what the player is taught and what happens on screen with UI to convey the steps of playing the tutorial.

	Player's turn 1			Enemy's turn 1	Scripted events	
Moments	Spawning	Movement	Magic	Spawning	Batten Attack	Batten Attack
Description	Teaches spawning card	Teaches movement card	Teaches magic card Used by guardian on enemy main character	Teaches enemy spawning	Teaches enemy attacks Dementia Child gets attacked	Teaches enemy attacks Guardian is killed
Symptom						
Text pop-up	Instructions - Text	Instructions - Text	Instructions - Text			
Navigation	Drag spawn card to specific tile to spawn guardian Do twice	Drag movement card on guardian first Drag line over tiles to draw path Do same for child	Drag magic card on guardian who now stands against enemy Use magic functionality on enemy			
Screen	Level	Level	Level	Level	Level	Level
2D Characters and locations						
3D Characters and locations	Batten Monster and Minion, Child and two Guardians	Batten Monster and Minion, Child and two Guardians	Batten Monster and Minion, Child and two Guardians	Batten Monster and two Minions, Child and one Guardian	Batten Monster and two Minions, Child and one Guardian	Batten Monster and two Minions, Child and one Guardian
Dialogue	...	...	...	...	...	...

	Player's turn 2		Enemy's turn 2	Scripted events			
Child Reaction	Magic	Magic	Spawning	Movement	Batten Attack	Batten Attack	Child Reaction
Child reacts to the enemy attack: Dementia	Child kills a Minion	Guardian kills a Minion	Batten spawns two Minionis	Batten moves	Minion kills a Guardian	Minion attacks Child with difficult movement	Child reacts to the enemy attack: Difficult movement
Dialogue - Text	Has Dementia	Has Dementia					Dialogue - Text
Tap screen							Tap screen
Level	Level	Level	Level	Level	Level	Level	Level
Child - left corner							Child - left corner
Batten Monster and two Minions, Child and one Guardian	Batten Monster and one Minion, Child and one Guardian	Batten Monster, Child and one Guardian	Batten Monster and two Minions, Child and one Guardian	Batten Monster and two Minions, Child and one Guardian	Batten Monster and two Minions, Child	Batten Monster and two Minions, Child	Batten Monster and two Minions, Child
...	...	...	...	...	...	...	...

Player's turn 3		Enemy's turn 3				
Spawning	Movement	Magic	Movement	Batten Attack	Batten Attack	Child Reaction
Child spawns a Guardian	Child moves Learns that MC's cannot touch	Guardian kills a Minion	Batten moves	Minion attacks child with loss of sight	Batten kills guardian	Child reacts to the enemy attack: Loss of sight
Has difficult movement	Has difficult movement	Has difficult movement				Dialogue - Text
						Tap screen
Level	Level	Level	Level	Level	Level	Level
						Child - left corner
Batten Monster and two Minions, Child and one Guardian	Batten Monster and two Minions, Child and one Guardian	Batten Monster and one Minions, Child and one Guardian	Batten Monster and one Minions, Child and one Guardian	Batten Monster and one Minions, Child and one Guardian	Batten Monster and one Minions, Child	Batten Monster and one Minions, Child
...	...	...	...	...	...	...

Player's turn 4		
Movement	Child Reaction	Death Outro
Child moves Child reaches goal	Child reacts to having won	Child dies for awareness message and empathy
Has loss of sight		
	Dialogue - Text	Dialogue - Text
Level	Level	Black screen
	Child - left corner	
Batten Monster and one Minions, Child		
...	...	...

# NARRATIVE

Written by Awa Fooladi - 142960

## Characters

### **Protagonist - Child**

Name: Isaac

Age: 8

Gender: male

Isaac is a young boy suffering from Batten Disease.

He has a strong imagination and often has his head in the clouds. His biggest dream would be to become a pilot like his father.

Personality Traits:

- Mischievous
- Playful
- Kind
- Loves animals
- Creative
- Adventurous

### **External motivation:**

To raise awareness about the disease that he himself is suffering from to save his younger sister.

### **Internal motivation:**

He knows the truly defeat the Batten Monster. But he tries to do his best in going through each day regardless. He fears the disease (whom he pictures as a monster), but wants to confront it and stop being afraid of it. His growth is one of mental strength.

### **Companions - Guardians**

The Guardians are metaphorical for the child's parents/family. They appear as large mythical beasts wearing animal masks. The use of the masks is to hide their identity, since the Guardians do not have a specific identity. They are not male or female and they are not specific people.

The Guardians may also represent the “fighting spirit” that stands strong against Batten Disease: the donators, the doctors, the scientists etc.

**External motivation:** To protect the child as much as they can. They cannot defeat the disease entirely, but they will do their best to help the child go through the day with as little suffering as possible.

**Internal motivation:** Perhaps even more than the child, the Guardians need to come to terms with the inevitable loss that they will experience over the child’s death. And yet, for the sake of others suffering from Batten Disease, they need to remain strong and keep on fighting the disease.

### **Antagonist - Batten Monster Minions**

The ‘Batten Monster’ is the metaphorical enemy that exists inside the child’s head. This is how the child has given form to the disease.

The Batten Monster, has it’s ‘Minions’ to help attack the child. The Minions are metaphorical for the child feeling surrounded and cornered.

Their attacks:

- Blindness: When the player is blinded, a part of the enemy's' faction becomes hidden to the sight of the player.
- Dementia: This turns the card deck of the player around, bringing them in a state of confusion.
- Obstructed Movement: The cost for moving the player increases.

**External motivation:** To kill the child (and many more children) slowly.

**Internal motivation (if any):** None.

## Setting

Location: Everything that happens in the world is inside of a child’s imagination.

Time Period: Present

The child imagines fantasy like trees in peculiar colours. The child’s imagination only goes so far and thus the area surrounding the player is empty, resulting in an environment resembling a floating island.

The child has a fascination off the sky and his dearest wish would be to fly through the starry night sky.

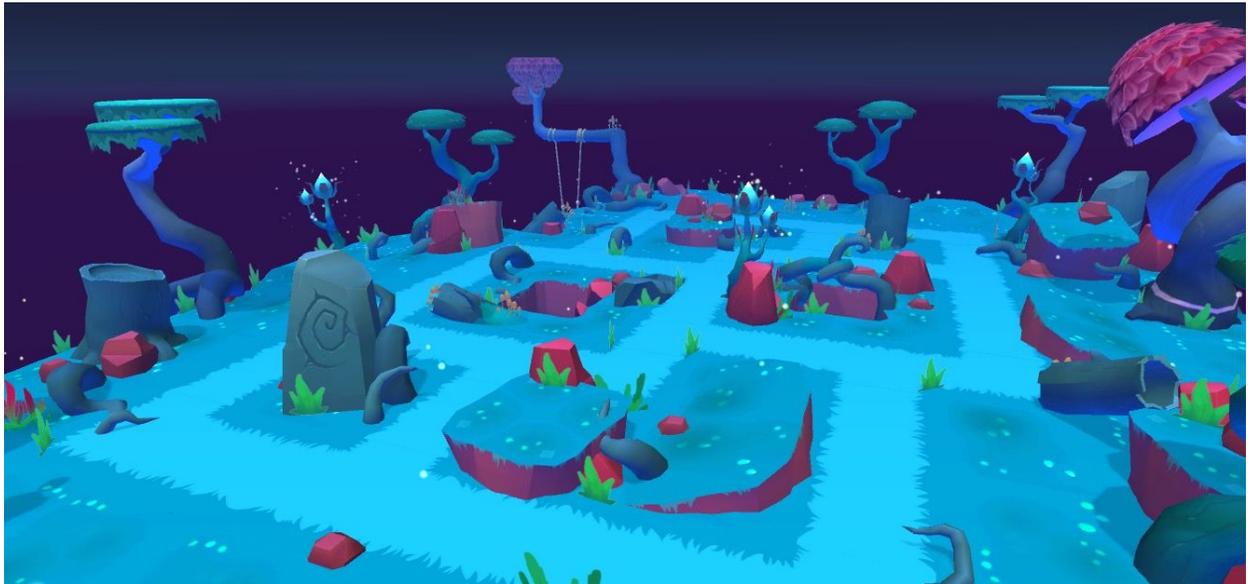
# FINAL GAME

Characters





Environment



Game screenshot

