

# Team GDD

<b>Task 1</b>	<b>2</b>
1.1. Core Gameplay	2
Outer Wilds	2
Life is Strange	5
Disco Elysium	7
Horizon	9
Objectives/Goals	9
Pokémon FireRed & LeafGreen	11
1.2. Team up	15
1.3. Create conflict	16
Set#1	16
Set#2	17
Set#3	18
Set#4	19
Set#5	20
1.4. Create Team Conflicts	21
Construct combinations in the team from your individual conflict sets	21
Describe the resulting core gameplay for a sketch	21
Tests the core gameplay in a common prototype in Unity under the following premise	22
Elaborate rules and design a conflict	22
Choose a setting and describe the boundaries	23
<b>Task 2</b>	<b>24</b>
2.1 Think about the two most important experiences for your game and describe them	24
Two most important experiences of our game:	24
2.2 Game Feel Steps	24
Improve the game feel of your game	24
2.3 Unique kinetic gameplay	25
Improves the game's kinetics	25
<b>Task 3</b>	<b>26</b>
3.1 Decisions and predictability	26
Improve the decisions in our game	26
3.2 Beta optimization	26

# Task 1

## 1.1. Core Gameplay

### Outer Wilds

#### Players

- Single player (Player vs Game)
- The player character is an Astronaut and Explorer

#### Objectives

- Exploration objective
- Players explore the solar system to find out about it, as well as the ongoing time loop
  - o Mini objectives: Each planet contains multiple puzzles, where a player needs to learn about the planet to solve them.
- The game begins on a small planet with a community of creatures that valorize explorers and daredevils
  - o Players share the goal of the main character to unveil the mystery of this solar system
- Players want to resolve the mystery of the time loop as well as find out about the solar system

#### Procedures/Actions

- The player can move and rotate with 3 DoF thanks to a jetpack. They can also control a spaceship with the same controls. Players can also interact with objects (mostly switches) and characters. The player also gains the ability to reset to the beginning of the time loop at some point during gameplay
- Most methods of interaction are always available to the player. Objects and characters can only be interacted with in a certain area around them

#### Rules

- If the player touches certain materials, runs out of air to breathe or is eaten, they die and are reset to the beginning of the time loops. After a certain time has elapsed in a time loop, the game resets the player to the beginning of the time loop. Certain things in the solar system change within a time loop, but all changes are reset at the end of a loop.

- Due to the time limit imposed by the time loop, players must plan out the order in which they visit locations in the solar system. The constant changes happening they also affect that schedule
- Most rules within the game are obvious (things fall down, ice melts in the sun, big scary monsters hurt you). Less obvious things, like the lethal substance are explained to the player via diegetic text. There is also a learnable rule about how certain objects react if you look at them (they change states when you stop looking at them)

## Resources

- The main resource affecting the player is time. As most of the events in the game happen according to a timer, the player constantly makes decisions in relation to the current time.
- While the player is outside of their spaceship, they have limited fuel and breathable air, which sometimes limits a player's ability to explore small spaces, where the ship can't go
- When the player or spaceship collides with objects they may take damage. This is rarely relevant, as the player can repair the ship an unlimited amount and the spaceship contains a health kit, which restores the player's health.

## Conflict

- The conflict in the game is mostly mental. Players must learn about the solar system and solve puzzles to achieve their goals.
- The player is limited by time.
- To learn about the solar system the player must overcome a set of obstacles mostly in the form of puzzles. The knowledge gained in this way allows the player to achieve their goal and reach the ending of the game.

## Boundaries

- Like most video games the game world is physically separated from the player by a screen.
- The in-game solar system has a boundary at its edge. If the player reaches that boundary, they receive one of the game's endings and are returned to the main menu.

## Outcome

- The game has three endings, which are all achieved by reaching certain locations in the solar system and interacting with objects there.

# Life is Strange

by Alina Becker

## Player

- Single Player
- You are a student called Max Caulfield studying photography in a small town
- You gain the special ability to rewind time in the beginning
- It is a calm game with many relaxed moments in between with dramatic twists.
- You interact with your environment and NPCs

## Objectives/Goals

- Find out the meaning of your nightmare you had in the beginning of the game
- What is the reason you can rewind time?
- Who and where is Rachel Amber and what happened to her?
- Help other students on campus
- Take a picture for the national photo competition "Everyday heroes"
- Take pictures of specific motifs to collect them

## Procedures

- Move Max via left joystick (run with ZR) and the camera via right joystick in a 3D-world.
- Do actions with X, B, Y and A
- You can open the diary where Max writes down everything that has happened so far and shares her feelings. She also writes short portfolios for every character she met so far in the game. She also sticks Polaroid photos in her diary of the specific motifs you can collect
- You can read her text messages in her phone

## Rules

- The Rewind Time power does not affect Max, so she can use her movement to "teleport". She keeps the information and objects she has obtained before rewinding time.
- When you interact with NPCs, you have to make decisions that can have consequences. (those are made visual with a butterfly symbol in the corner of the screen)
- You can rewind time to use gained information to access blocked paths (e.g. a student only will only let you fly her drone if you can tell her the model number of the drone. After she tells you the model number, you can rewind time and unlock the path to fly the drone.)

## Resources

- Information gained through interaction with NPCs or items found through exploration.

## Conflict

- Difficult decisions in dialogs
  - For some decisions there are only options, none of them the player wants, so it is hard to decide
- Some interactions can freeze time when a major decision needs to be made (those have bigger consequences).
- You cannot rescue everyone.

### **Boundaries**

- You can pause the game at any time (not during the cut-scenes)
- You can move freely within the given area, but you cannot leave it. You have to follow the story to get to a different area.

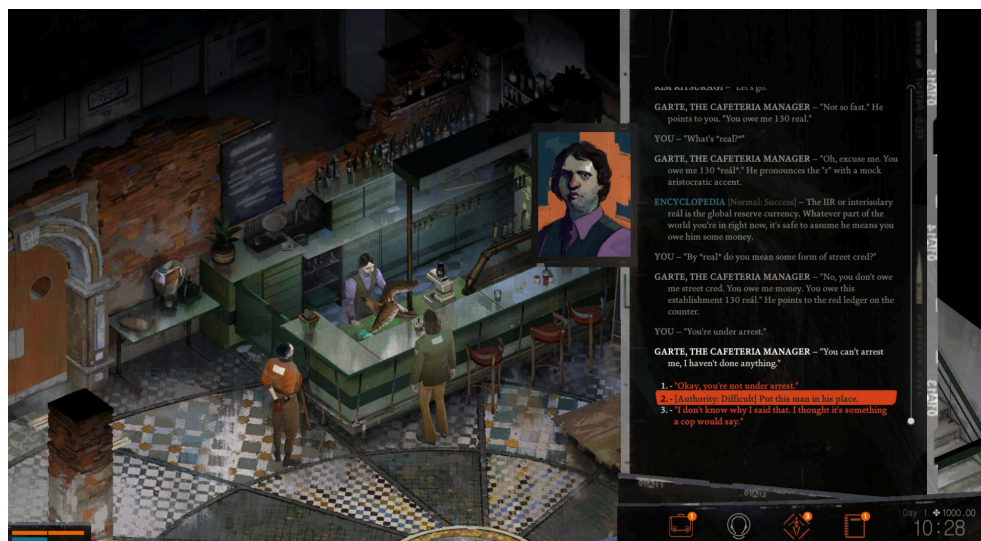
### **Outcome/Feedback**

- The game has two possible endings that depend on the last major decision. How you decide depends on how you perceived the game and how you engaged with the world and the people that you were introduced to.

# Disco Elysium

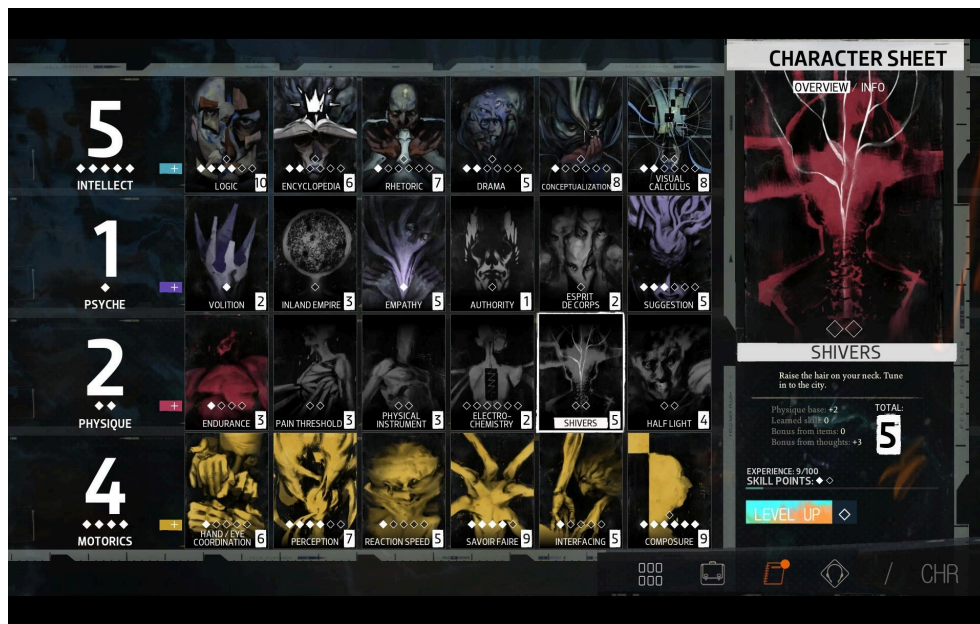
by Dennis Okkel

- Players
  - Single Player
  - You have the role of a cop/detective that has lost his memory
  - Interactions only with npcs and objects in the game
- Objective
  - Solve the case
  - Find out who you are
  - Level up to boost your stats
  - Gather information by talking to people and exploring the world
  - Solving quests
- Procedures
  - The player can move in the world(via mouse click or wasd)
    - The areas that you can access are limited at the start and get unlocked with story progress
  - You can interact with people or objects by clicking on them
  - If you interact, a dialogue begins in which you can select different dialogue options



- Rules
  - The dialogue options that you get depend on your skills
  - Whether someone wants to talk to you depends on your personality and ideology
  - Some dialogue options require a skill check
    - The chance to pass depends on your skills
    - If you fail something bad happens(you don't get information, you lose health etc.)
  - Depending on your skills aspects of your personality will “talk” to you during a dialogue

- for example if you have a high empathy value then your empathy will intervene in your dialogue and tell you about the potential feelings of the NPC you are talking with



- Resources
  - Health
    - health and mental health can be lost or gain within dialogues or healed with items
  - Mental health
  - Money
  - Clothes
    - Different clothes can be found in the game world
    - They influence your skills
- Conflict
  - Difficult choices in Dialogues
  - Choices how you use your skill points
  - What kind of cop do I want to be?
  - What ideology does my character have?
  - Which faction do I want to help?
    - None of the factions is completely good or bad
  - Where to spend my money?
- Boundaries
  - You can pause and save/load the game at any point
  - The areas you have access to are restricted by time and story progress
- Outcome
  - The outcome is defined by your choices
    - Did you solve the case?
    - What kind of cop did you play?



## Horizon

This is a single player action roleplaying game, in which the player gets to slip into the role of an expert huntress named Aloy.



The player's role, gameplaywise, can vary between warrior, hunter (archer) and assassin.

### Objectives/Goals

Dangerous machines roam a slowly dying world. Those machines have been getting more aggressive over the years. The player has to investigate this growing corruption, who created the machines and what happened to them.

- defeating enemies
- gathering resources
- crafting
- exploration

The main goal in the game is to uncover who left the ancient ruins the player has to explore, what happened to those people and why do giant machines roam the earth.

### Procedures / Actions

The game is most commonly played using a game controller but can also be played using a mouse and keyboard. The controls stay the same almost the entire game, without new aspects being added. Progression can be achieved by crafting new gear.

- move - left joystick
- camera - right joystick
- scan env. - L3
- use spear
- use bow
- ...

### Rules

Enemies take damage when they're hit with different types of weapons. How much damage is dealt exactly depends on the enemies' weaknesses, which the player can learn by scanning them.

The amount of weapons the player can equip is limited, so you have to think about which weapons to use before engaging an enemy.

- different weapons can lead to different playstyles

All rules are obvious or learnable.

- Don't get hit by enemies (obvious)
- enemy weaknesses - visible cues (learnable)

## Resources

- health - if you have none left, you die
- money (metal shards) - obtained by looting enemies and completing quests
- machine parts - needed to craft gear, also obtained by looting
- ...

## Conflict

The obstacles the player faces mostly focus on the enemies, that have to be defeated

- enemy patterns / attacks have to be recognized
- enemy weaknesses have to be exploited
- correct choice of weapons makes the game easier
- pay attention to surroundings - don't attract too much enemies

There are almost no dilemmas (storywise), since the game is completely linear.

## Boundaries

The game can be paused at any time - nothing happens while it is paused.

The game progress has to be saved manually, although there are automatic savepoints.

Saving the game is not possible if the player is in a fight.

In-game boundaries are physical. The open world is surrounded by mountains, that cannot be climbed. If the player somehow manages to do so and goes too far, he or she dies.

## Outcome / Feedback

The player finishes the game, once he has completed all main quests. The instant reward for this would be the conclusion of the story itself.

Also a 'new game+' is available, once the game has been finished once. That means the player can restart the game with all his current equipment. In addition to that, new gear can be crafted.

For each completed quest the player gets new items. Progressing in the story and killing certain kinds of enemies enables the player to craft new gear.

# Pokémon FireRed & LeafGreen

by William Dutra

## High Concept

In a universe where creatures with special abilities live alongside humans, the pokémon battle fever arises, in which humans (players) train their companions to face off in friendly competitions against friends and gym leaders in the quest to become the best pokémon trainer in their region.

## Player

The basic structure of the game involves controlling a single character (represented in either male or female form), a pokémon trainer who has just turned 12 and now has his mother's permission to explore his region in pursuit of his dream of becoming the greatest pokémon master.

The game follows the idea of 1 player, i.e. a solo journey, but there is still the possibility of trading pokemons between friends.

The character's objective is basically a reflection of the player's own objective when they start playing, which means that the player's feeling when controlling their character is almost as if they were controlling a reflection of themselves in that universe, which favors immersion in both the story and the gameplay.

## Objectives

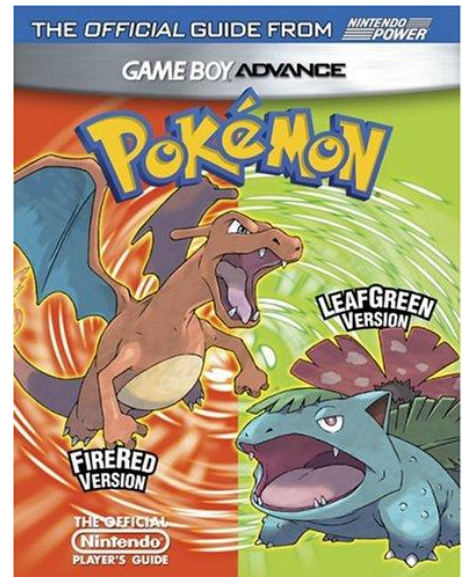
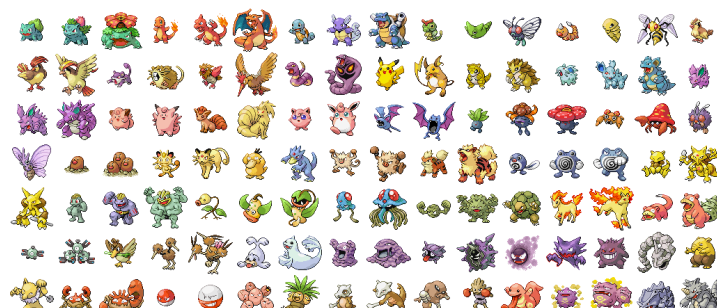
The title has a very specific objective, as already mentioned, to become a Pokemon master, but on top of this macro objective, there are many points that the player needs to work towards. **(Exploration)**

In short, the main thing is to capture pokemons and increase their levels, teaching them new skills during their journey, all with the aim of becoming strong enough to defeat the gym leaders, because on defeating them, the player will receive a badge as proof of their victory.



By defeating the 8 gym leaders and collecting their badges, the player is allowed to challenge the group of the best pokemon trainers in their region, and by winning, they become the pokemon master of Kanto (the region in which the game is set).

In addition to the main objective, there is also a secondary one, which is given to us right at the start of the game and which also usually interests players, which is to capture all the pokemons in your region, i.e. 151 pokemons.



## Procedures/Actions

As this is an old RPG, the control structure is basic, meaning that manual actions are limited to walking and selecting which attack the pokemon should use.

The key point is the decisions the player has to make throughout the story, about which pokemons they want to use, as well as the skills they want to teach.

The pokemons have a series of attributes that show their strengths or weaknesses, opening up possibilities for various strategies, either by these attributes or by their elements, since every pokemon has a specific element that is consequently strong against other elements.

In addition, there is a specific point in the journey, which is the evolution of the pokemons, where the vast majority have evolutions that can change both their element and their form of combat.

## Rules

- Every pokemon has its own life bar. As soon as this bar is depleted in combat, the pokemon faints and can only be used again if it is healed at a pokemon center.
- Some elements are stronger than other elements. When this happens, attacks usually deal 2x their damage, but if the opposite happens, only half the damage is counted.
- The player will only be able to carry a maximum of 6 pokemons with them, all the others captured will be kept with the “teacher”, however the player will be able to change their pokemons whenever they want, but always keeping to the limit of 6 pokemons

Defender \ Attacker	Normal	Fire	Water	Grass	Electric	Ice	Fighting	Poison	Ground	Flying	Psychic	Bug	Rock	Ghost	Dark	Steel
Normal	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fire	1	1	0.5	2	1	2	1	1	1	1	1	1	1	1	1	1
Water	1	2	1	0.5	1	1	1	1	1	1	1	1	1	1	1	1
Grass	1	0.5	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Electric	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ice	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fighting	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Poison	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ground	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Flying	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Psychic	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Bug	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Rock	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ghost	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dark	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Steel	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

## Resources

There are 3 main assets, money, pokemons and pokemon experience (XP). Both are obtained in combat, becoming part of the core loop, where the player needs to get strong to defeat their opponents and earn money, using the money then to buy items in order to capture new pokemons, in turn receiving more XP which increases both the level and attributes of their pokemon.

**Money:** Obtained only by defeating human opponents or completing missions (whether primary or secondary).

**XP:** Obtained whenever a battle is concluded with your victory, whether against human opponents or wild pokemons.

## Pokemons:

### Pokemon's health bar:



## Conflict

It is not possible to directly challenge the “Elite Four”, which is the group that the player needs to defeat in order to gain access to and defeat the current pokemon master, because the game itself is restricted to being guided by the storyline, and this storyline cannot be skipped.

So, yes, the player needs to challenge and defeat all 8 gym leaders, get their badges and finally reach the elite 4.

If for any reason the player tries to skip this route, they will be prevented in countless different ways, be it by the map, by NPCs or even by the narrative itself.

What's more, whenever you walk in a wild pokemon area, the chances are high that you'll have to fight one of them, leading to constant conflicts. As well as other pokemon trainers (NPCs) who are in your way, they can challenge you and you have no choice but to defeat them.

## Boundaries

In addition to being a game with instantiated environments, on the map itself the player already knows its "physical" limits, which routes can or cannot be explored, as well as the means that need to be used (swimming, walking or flying).

## Outcome

For all challenges there is a corresponding reward, which is listed from lowest to highest reward.

**Defeating Wild Pokemon:** Receives Experience (EXP)

**Defeating Pokemon Trainers:** Receive Experience (EXP) and Money

**Defeating Gym Leaders:** Receive Experience, Money and a Gym Badge

**Defeating an Elite Four trainer:** Receive Experience, Money and the permission to move on to the next member of the "Elite Four", until you defeat them all.

**Defeating the current Pokemon Master:** Completes the game objective


However, even with the objective of the game completed, the player can still continue to play and capture new pokemons as long as they want.

In short, winning the game is not about luck, but about having strategy and knowing your own pokemons, something that is built during your journey.


## 1.2. Team up

The members of the team are:

- Alina Becker
- William Dutra
- Kevin Ehlen
- Lennart Gillberg
- Dennis Okkel

Alina Becker			
Informatik/Bonn			
Life is Strange			
Game Arts			
Game Design			
Game Program.			
Unity Engine			
User Evaluation			

Dennis Okkel			
Computer Science/Visual Computing in Siegen			
Civilisation, Witcher 3, Elden Ring, Disco Elysium, Baldurs Gate 3			
Game Arts			
Game Design			
Game Program			
Unity Engine			
User Evaluation			

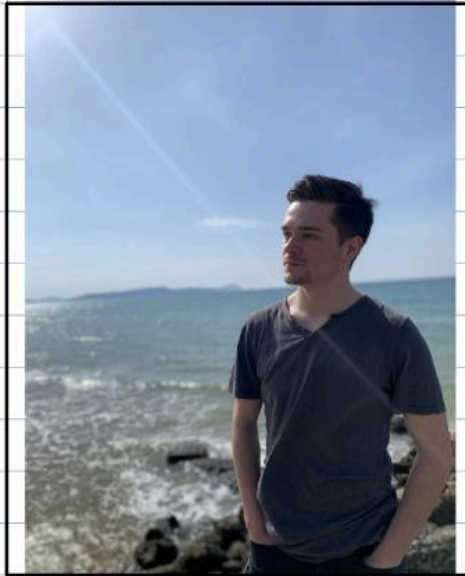
Kevin Ehlen			
Bachelor Informatik Köln			
Outer Wilds, Hotline Miami			
Game Design			
Game Engineering			
Unity Engine			
Game Art			
Game Evaluation			



Lennart Gillberg

Informatik Bsc. / Siegen  
MVG / Sankt Augustin

Horizons Zero Dawn  
Minecraft  
Jedi's Fallen Order



Game Arts

Game Design

Game Program

Unity Engine

User Evaluation

None Intermediate Pro


Name  
William H. Costa Dutra



Prev. Edu.  
BSc System Information / Brazil

Favorite Games  
Pokémon, Super Mario World,  
Kingdom Hearts (History)

Skills Level

Game Arts

Game Design

Game Program.

Unity Engine

User Evaluation



## 1.3. Create conflict

### Set#1

by Dennis Okkel

Random words: shame, sense, scenario

Players:

- Single player
- Player/Character lost his eyesight/senses

Objectives:

- Find checkpoints to gain back your senses
- Fight monsters, do jump passages and puzzles to get to the checkpoints

Procedures:

- Walk with "wasd" or analog stick
- Jump with "space" or Controller Button "A"
- Fight with "E" or Controller Button "X"
- Activate checkpoint → get some of your senses/ abilities back
- With new abilities/senses, you are able to solve puzzles/passages that you couldn't before

## Set#2

by William Dutra

### Procedures/Actions

Keyboard commands via directional keys with the mouse taking on the role in the character's line of sight. The mobile device will have a touch interface that simulates the same structure.

#### Keyboard/Mouse

**"D" key:** moves to the right

**"A" key:** moves to the left

**"S" key:** move backwards

**"W" key:** moves forward

**Left mouse click:** Uses the proton backpack

**Shift key:** The character uses the dash

**Key "1":** red shot

**Key "2":** blue shot

**Key "3":** yellow shot

**Esc:** Opens the settings menu

### Rules

**Rule 1:** Whenever the player has 0 HP, they will be kicked out of the Mansion by the ghosts.

**Rule 2:** The mansion will always restructure when the player is kicked out (procedural).

**Rule 3:** It will not be possible to move on to the next room without defeating all the ghosts in the current room.

**Rule 4:** Ghosts will only receive damage from shots of their respective color, i.e. yellow ghosts will not receive damage from red shots.

### Outcome

The Mansion is made up of 3 stages, each stage has 5 rooms that are structured procedurally, in the last room of each stage you'll meet one of your friends, until you finally reach the last fight against Mansion itself.

By defeating the BOSS, the game is over and the player will have succeeded in saving his co-workers and friends.

## Set#3

by Alina Becker

Random generated words: heart, genuine, bake

- **Players**

- Single Player vs Game
- Player controls a baker who owns a bakery
- Player can select different avatars for character

- **Resources**

- Prestige: If you bake genuine, then customers will be more pleased. The more they are pleased the more hearts you gain.
- Hearts: The more hearts you have, the more customers come and the more they pay.
- Currency: Buy better equipment (e.g. oven)
  - Faster and better quality of products
  - With better quality, customers get pleased more
- Terrain: Make your bakery bigger, so you can serve more customers and have space for more equipment.
- Time: Open bakery for a given time
  - In-game a day

- **Outcome/Feedback**

- predefined ending
  - Happens if the player gained enough hearts for their genuineness
  - The baker's goal of becoming the best baker in the world has come true. He lives happily ever after.

## Set#4

by Lennart Gillberg

**Random words:** nap, friend, mutter

### Procedures:

For the most part the basic controls are the same as in most other games:

- move - left joystick / w, a, s, d
- jump - x / space
- interact - triangle / E

If wanted:

- attack - square / mouse (left)
- block - L1 / mouse (right)
- evade - circle + left joystick / shift

Finding runes/books unlocks special abilities. Using them the player can perform special actions, when interacting with objects around him.

The runes have to be muttered / whispered by the character in order to take effect.

- runes/spells can be used on specific objects or a whole area

BSP:

- wind / storm
- rumbling earth
- rising water
- nature growth
- growing and shrinking objects
- rain ...

Perhaps the main character can meet a companion along his journey, which fills some kind of support role - "Lost in Random"

### Rules:

Runes can only be used (with the desired effect), if certain visual or audio cues are present

- a specific object has a certain glow
- a whole area is marked in a certain way

Using a runes that don't fit the visible cues could cause certain penalties

An array of traps could be implemented, all recognizable by certain characteristics, so player can avoid them.

### Boundaries:

- Pausing and saving the game is possible at any time.
- Physical boundaries to limit area of movement
  - walls, trees, ... (depending on setting)

## Set#5

by Kevin Ehlen

Words: Punch, Quantity, Action

Objective: Reduce your opponent's life by hitting them. Reduce the to 0 twice to win the game

Resources: Life (starts at full, reduces when you are hit, you lose when it becomes 0), Special Move Charges (start at 1 each, slowly recharge over time until a given number is reached, need to be expended to perform special move), Energy (starts at 0, charges when you hit opponent, can be expended to empower attacks)

Outcomes:

Rewards:

Intrinsic: Hitting the opponent rewards the player with energy, Reducing the opponent to 0 life rewards the player with a point, if they get 2 points before the opponent they win

Extrinsic: Playing the game makes the player better, enabling them to overcome greater challenges (i.e. stronger opponents)

Is there a way to win the game?

Yes, but individual wins are less important than long term personal progress

## 1.4. Create Team Conflicts

### Construct combinations in the team from your individual conflict sets

As the individual conflicts are very different, we have tried to combine them in the best possible way. However, not all of them could be taken into account.

We take Dennis Okkel's basic idea that the player has to regain their senses by reaching checkpoints respectively crystals. To get to the crystals, the player has to solve puzzles.

Once a crystal has been reached, the player enters a new stage respectively act. Only when the puzzles have been solved, the player can leave the current area and move on to the next one (see William Dutra's idea).

Each act is assigned to a sense: The first to feel, the second to hear and the third to see.

The senses of smell and taste are not planned for the alpha version. They might be added in the beta version.

(written by Alina Becker)

### Describe the resulting core gameplay for a sketch

#### Player:

- Single Player vs Game
- Player lost his eyesight and sees everything blurry (needs glasses to see clearly)
- Player lost hearing and feeling sense

#### Objectives/Goals:

- Puzzles to find glasses and better ones

#### Procedures/Actions:

- Walk with WASD
- Put on glasses with Q
- Interact with environment with E (e.g. start a riddle/puzzle)
- Open settings menu with ESC (maybe add in beta version for slower camera movement against motion sickness)

#### Rules:

- Solve puzzles to get better glasses
- Solve puzzles to further progress in the environment (paths are blocked?)
- If the power bar of the glasses is empty, the player has no energy left to wear them. They have to put them down.

#### Resources:

- Glasses to see
- Power bar for glasses

#### Conflict:

- Player has limited eyesight
- Player needs glasses to see further
- Player needs Level 1 glasses before they can get Level 2 glasses

**Boundaries:**

- Pausing the game is possible at any time
  - automatic saving at checkpoints for user evaluation
- Physical Boundaries to limit area of movement

**Outcome/Feedback:**

- By getting the best glasses the player can see everything clearly, nothing is blurred anymore

The final project is described [here](#). The text on this page is written by William Dutra if not marked otherwise, e.g. Narrative Summary (Story Text) is written by Alina Becker.

## **Tests the core gameplay in a common prototype in Unity under the following premise**

min. 3 procedures:

- wasd - Movement
- mouse - move the camera
- e - Interact with environment (to begin puzzle)
- q - improve vision

min. 1 dynamic object:

- glasses of different Levels
  - higher level -> vision gets clearer
- sound source in maze that moves if player gets closer

min. 2 resources:

- focus to see (need to concentrate and it's exhausting -> power bar)
- power bar gets better after each level in act three

min. 3 forms of feedback/outcome:

- By getting clearing all levels, player has perfect vision and does not need a power bar anymore
  - outcome different
- sound source in maze that moves if player gets closer
- use crystal to get to new scene
  - act 1 outcome: player can hear
  - act 2 outcome: player can see blurry
  - act 3 outcome: player can see perfectly

min. 1 static or dynamic camera:

- First person perspective

## **Elaborate rules and design a conflict**

**conflict:**

The goal of the game is to regain the lost senses (feeling, hearing, seeing). The player must first regain one sense before he can move on to the next. This rule is ensured by the

boundary that the player can only move in a certain area and can only move to a new area once the corresponding sense has been obtained. To regain senses, the player must interact with their environment and solve puzzles. (written by Alina Becker)

**obvious rule:**

- When using improved vision, power bar gets lower
- Player falls if they leave the platform at an edge

**learnable rule:**

- Some levels are only solvable with better vision, so easier levels have to be solved before
- The player must find the crystals (checkpoints) in order to reach a new area
- Staircase to the finish crystal get completed step by step after solving the puzzles

(written by Alina Becker)

## **Choose a setting and describe the boundaries**

**Setting:** For countless years, a man found himself surrounded by darkness, by a true emptiness, where he could neither feel, touch, hear or even see anything. Until he finally lost himself, forgetting not only his "senses", but also his very existence.

But in the midst of years of darkness, a light of hope appears, trying to guide him and remind him not only of his senses, but also of the meaning of life, before it's too late. (written by William Dutra)

**Boundaries:** Bound by the rules of their understanding, the player can only move within the specified area and cannot leave it until they have completed the puzzles. (written by Alina Becker)



# Task 2

## 2.1 Think about the two most important experiences for your game and describe them

- the aesthetic sensation of control
- the pleasure of learning, practicing and mastering a skill
- extension of the senses
- extension of identity
- interaction with a unique physical reality within the game

### Two most important experiences of our game:

1. extension of the senses
  - The perception of the senses is limited at the beginning and in the progress of the game, when the player has solved puzzles and reached checkpoints, the player regains the senses. The implementation in the game offers another opportunity to discover one's senses. Not only in reality, but also virtually.  
(written by Alina Becker)
2. extension of identity
  - The player has to find themselves in the game. Perhaps this encourages the player to reshape and rediscover themselves in the reality outside the game.  
(written by Alina Becker)

## 2.2 Game Feel Steps

### Improve the game feel of your game

- For the most important experiences (see 2.1)
- Applies the three most important steps to Swink:
  - 1) Map input signals to motion
    - **Motion with wasd:** Kevin Ehlen/Lennart Gillberg
    - **Grab objects:** Kevin Ehlen
  - 2) Create a space and objects to give that motion frame of reference
    - Stage where player can move gives motion frame of reference
      - **Main menu with graphics:** Alina Becker
      - **Pause menu:** Alina Becker
      - **Option menu:** Alina Becker
      - **Story Text:** Alina Becker
      - **Transition Scene between Stages:** Lennart Gillberg
      - **Stage 1:** Lennart Gillberg
        - **Audio Effects:** Lennart Gillberg
        - **Crystal Movement:** Lennart Gillberg
      - **Stage 2:** Kevin Ehlen
        - **Audio Effects:** Kevin Ehlen

- **Maze:** Dennis Okkel/Kevin Ehlen
  - **Stage 3:** Dennis Okkel
    - Puzzles:
      - **Stone puzzle:** Alina Becker
      - **Grabbing platform puzzle:** Kevin Ehlen
      - **Moving platform puzzle:** Dennis Okkel
      - **Taste/Smell puzzle:** William Dutra
    - **Placement of environment Assets:** Kevin Ehlen/Lennart Gillberg
    - **Staircase:** Dennis Okkel
    - **Powerbar for glasses (implementation of Asset):** Kevin Ehlen
  - 3) Define behavior of camera
    - **first-person POV camera:** Kevin Ehlen
- (written by Alina Becker)

## 2.3 Unique kinetic gameplay

Improves the game's kinetics

### **Movement:**

We move the player with a simulated physical force. The force is calculated from the normalized move-direction-vector and multiplied by a movement speed.

(written by Dennis Okkel)

### **Jump:**

To jump, we check if we are standing on an object that is on the ground-layer. If so, we also use a force that moves our player up.

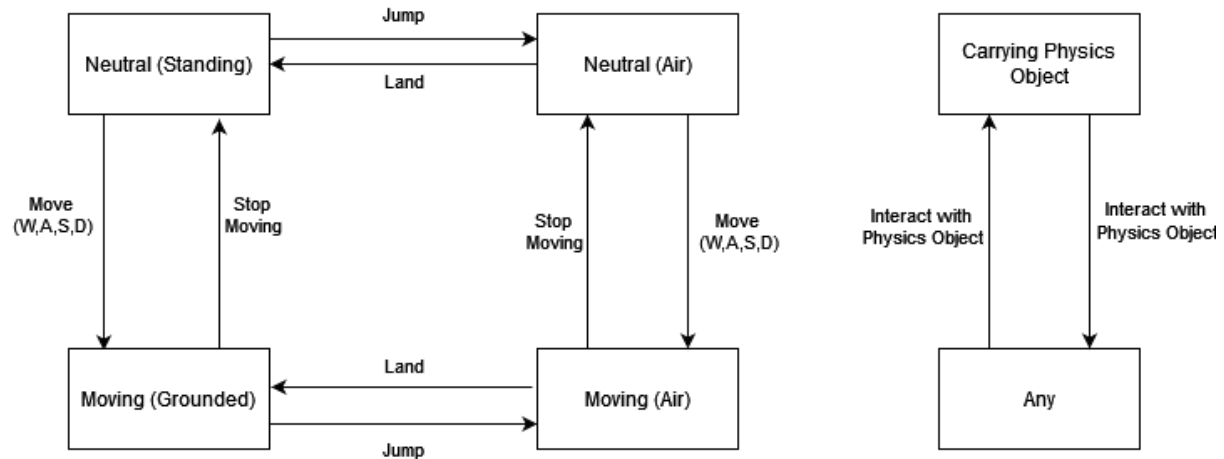
(written by Dennis Okkel)

### **Carrying Physics Object:**

When you interact with a carryable physics object, the object becomes attached to the player and hovers a fixed distance in front of them. Interacting with the object again causes the object to become unattached.

(written by Kevin Ehlen)

Interaction Loop < 240 ms resulting from our own parameters and calculations for the individual stats:



(figure by Kevin Ehlen)

## Task 3

### 3.1 Decisions and predictability

Improve the decisions in our game

- What decisions are there?
  - stage 2: Which path do I take in the labyrinth?
  - stage 3: In which order do I solve the puzzles?
  - stage 3: grabbing puzzle:
    - When to jump?
- What is the respective scope?
  - The respective scope is very small, as there is only one correct solution/decision for the first two bullet points
  - The respective scope of the grabbing puzzle is bigger because the player can fall off the platforms (but it has no consequences, the player will be respawned)
- How do you achieve partial predictability?
  - The player does not know the puzzles. As they are very varied, the player doesn't know what to expect when they start a puzzle. Only when they have the puzzle in front of them, they can think of a solution.
- How much information is there? (Where is Starvation, where is Ember? / Break that up! -> Hide or reveal information to player)
  - The player only knows that they have to solve puzzles
  - The player only gets information from their surroundings and the story text that is displayed

(written by Alina Becker)

### 3.2 Beta optimization

For the Beta we added the following optimizations:

- Transition Scenes between Stages
  - For a smoother connection, we have built in a transition.
- Story Text
  - For a better understanding and higher personification with the character, we have added a story. This tells the player the current situation in a vague way, so that the player's curiosity is aroused.
- Vision
  - Vision can be temporarily improved by pressing Q
  - In the bottom left corner is an indicator that shows how long the player still has the improved view until it has to recharge.
- Game Progress
  - The player's progress is saved in order to analyze data for user evaluation.
- Option Menu
  - The setting for the Field of Vision for large screens and the sensitivity of the camera for players who tend to get motion sickness quickly have been added.
- Character Controls
  - We have improved the movement of the character in order to make it feel better to move in the game, so that the player feels like they are in a different world.

(written by Alina Becker)