
Tel [+32 456 61 53 30]

[[Botenkopersstraat 2](#)]
[Kortrijk, 8500]

[<https://www.digitalartsandentertainment.be/>]
[facundo.gonzalez@student.howest.be]



GAME DESIGN DOCUMENT

A game that celebrates the capability of a child to look at other people without prejudice.

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"Let's see the difference with the eyes of a child."

Client briefing

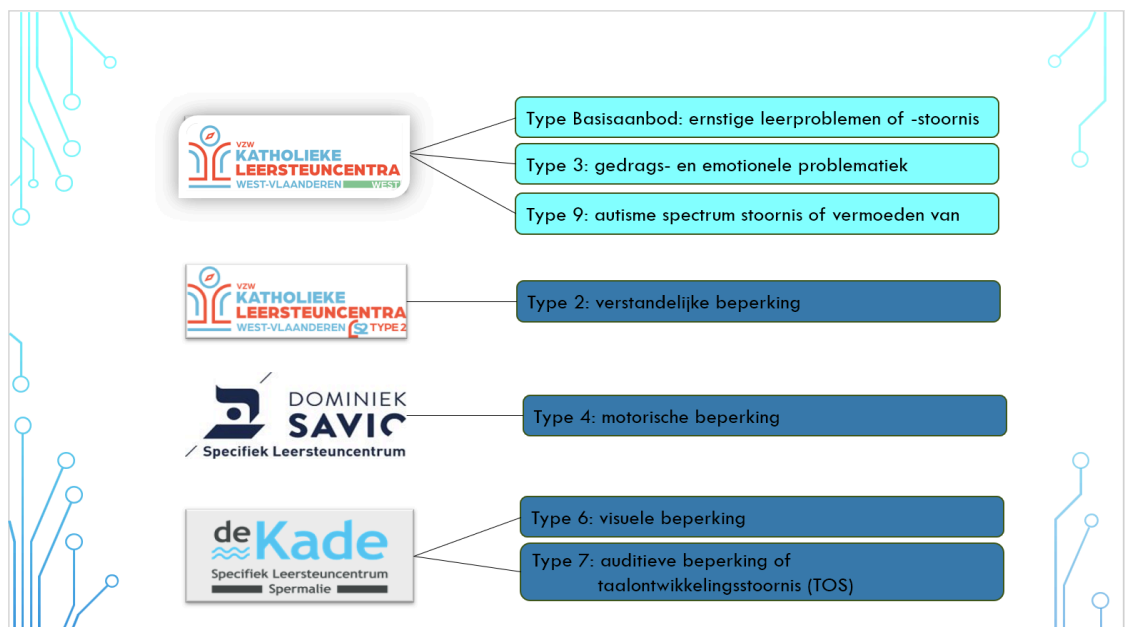
Who is our client?

Katholieke Leersteuncentra West-Vlaanderen is an association that provides learning support for pupils with specific educational needs within the regular education schools.

Our client specifically focus on learning support for types basisaanbod, 2, 3, 9 students and basic provision.

Those are:

- **Basisaanbod:** children with specific educational needs for whom the common curriculum with reasonable adjustments is not feasible in a regular school. Having dyslexia, stutter or ADHD qualify a student to be in this type.
- **Type 3:** students with behavioural and/or emotional issues.
- **Type 9:** students in the autism spectrum.



What did our client want?

Our client wanted a game that could be played with a class of students. The game is going to be a tool to support inclusive education. This process aims to integrate students with disabilities (in this case type basisaanbod, 2, 3 and 9) in regular education.

The target audience they were aiming for was initially 12-14 years old, then extended to 10-14.

The game goal is to introduce students to inclusivity and diversity, and teach them to care for everyone. The game must then promote awareness to disabilities and provide a group activity where the whole class works together towards the same goal.

Our solution

After discussing with the client we decided to connect the whole classroom in a multiplayer game. The game is about making a comic strip together based on prompts written by the students themselves. These strips won't be made by drawing, but by placing stickers on a board.

Inclusivity and disability awareness are tackled through the characters that these stories involve. The players can choose from a cast of characters each representing a disability and place them in their story.

Elevator Pitch

Teacher/Target audience elevator pitch

"Get your class together in a fun, involved game where students create comics using cute animals, and see what kind of treatment they think is feasible in different everyday situations."

Shareholder elevator pitch

"An attractive product for schools looking to support inclusive education through the promotion of equal treatment to everyone, in which students will have to make comics using stylized animal characters."

Game design philosophy

Design Pillars



INCLUSIVITY and equality in the eye of the beholder

This is the most important pillar to discuss in the game. The reason behind everyone interpreting their own version of a situation is to investigate if they act differently when dealing with some people due to their prejudices. We leave it to the teachers to discuss these aspects and point out when they discriminate through differences of treatment. We are just creating an engine to fuel these discussions.

CREATIVITY

The game should encourage players to be creative with their solutions and the way they approach them. It encourages it to the point where it sometimes feels more like a tool than a game, so we make sure to add as many gamified elements as we can.

COMIC CREATION

One aspect our game centers around quite heavily is naturally the comic creation aspect. We made it so comic creation is at the center of everything the game is about. It also works for creating a tale and investigating the different themes that should be present in the game. It also gives an incredible amount of freedom to our players, allowing for fun moments not necessarily intended by us.

Target Experience

This is a collaborative party game in which the whole class is invested. Naturally, being designed towards a classroom environment, we expect students to play with their personal devices, while the teacher uses a video projection for everyone to see.

It should then be a fun, social and creative experience. It should make the room loud, everyone discussing with their teammates what kind of story should be told with the prompt. At the end, we expect laughs and curiosity from the students reacting to the different comic strips. This type of social interaction between the players is something we really looked for.

Gameplay loop

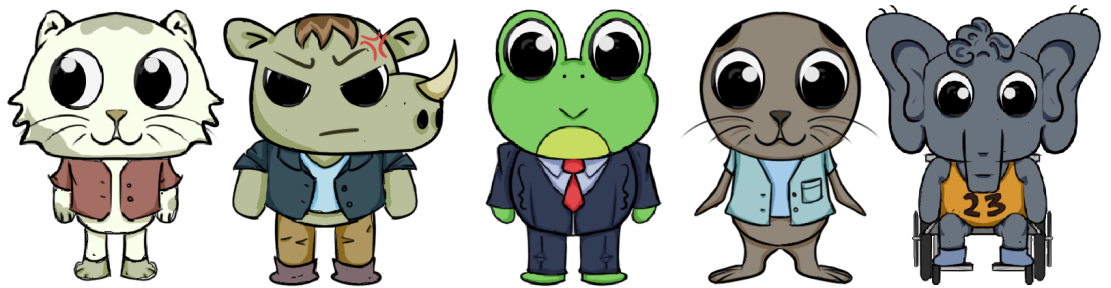
A gaming session with the classroom consists of several phases:

- Join a lobby and a group (more “bureaucratic” steps to make sure that everyone joins the game and the players are divided in groups)
- Create a prompt
- Strip making with your group! Based on the prompt you got.
- Get someone else’s strip and continue it (until every group contributed to every strip)
- Final showcase

Since the game set up can be tedious we tried to have as few steps as possible, as well as an interactive interface for the grouping phase. We don’t want to lose the attention of the players, especially with such a young audience, before the game even starts.

The teacher though always has the last say on when the game will proceed.

Characters



The characters in this story are supposed to include and explore different personalities and how they deal with their different disabilities. Such disabilities don't label them but rather make a small part of their identity. The game does not have a core storyline, but rather the characters will be the "actors" of the stories made by the players.



The players can choose between 4 emotions for each character in order to give them the appropriate reaction to every situation.

Stickers

The stickers are the main way through which the players create their stories. They mostly represent everyday objects that kids might use, neither too big nor too small.

We wanted to have as many as possible, the more there are the more the players have fun. We also wanted them to be interactable. It feels very good for the player not only to place the

stickers but to manipulate them: rotating them, moving them around, flipping them, copy pasting them. Some stickers also have a variation that the player can trigger.



Art bible

Art Pillars

Cute expressive animals

The characters are the soul of the game and the answer to the mission of our client. This means that their appearance should reflect their personality.



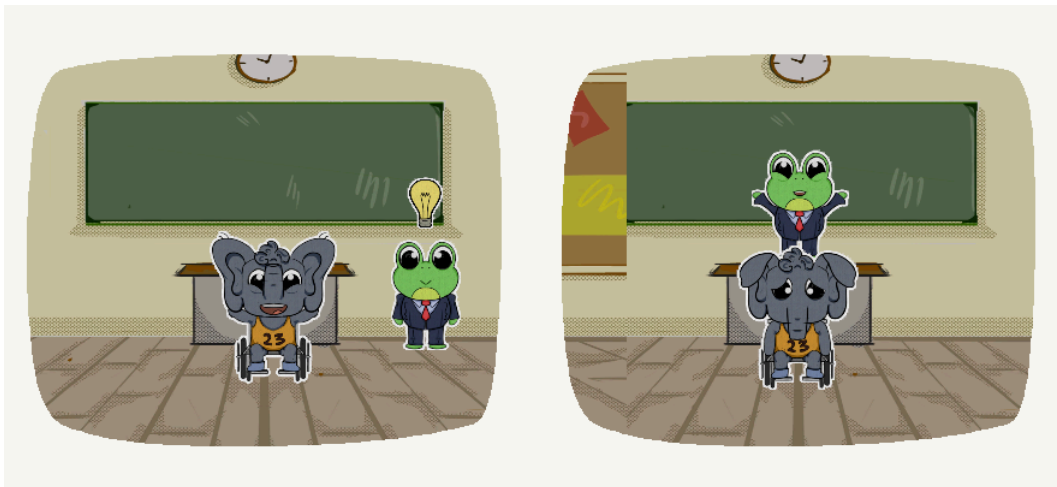
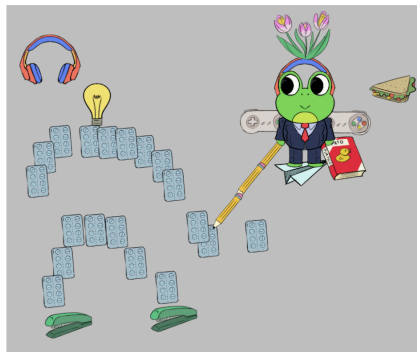
Modularity of assets

The characters are split into different body parts, so that we can reuse assets if possible. This happens with left and right limbs, or with the eyes of the characters, which are all the same asset.



Comic Style

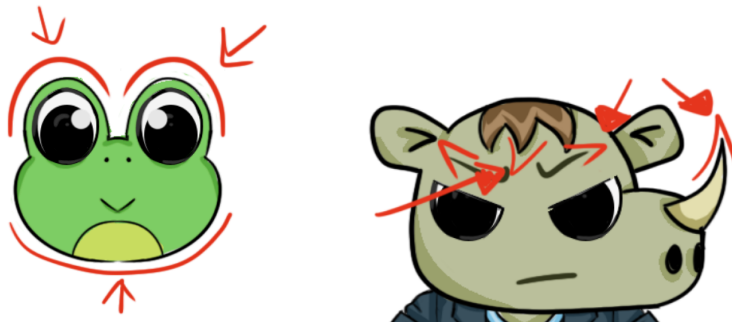
Making comics is the main point of our game. 2D Composition, use of halftones for background and UI elements. Use of paper texture to make it look like it was drawn.



Art style

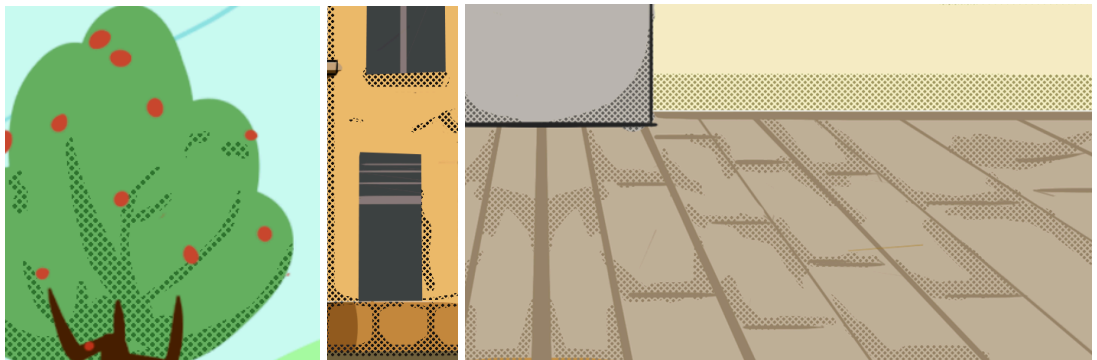
Shape Language

Rounded soft shapes. For the body of the characters rounded blocks. Pointy and sharp shapes used to communicate danger.



Textures

Environment and characters must be **discernible**. Environment and UI will use **halftones**, characters won't. Halftones will be made with the brush Kyle's screentones 35, which is built-in Photoshop.



To give the paper feeling to the **stickers** and **characters**, put the **paper texture** on top with overlay blend mode.

Outlines

For the outlines use Hard round brush with pen pressure size, with a base size of 7px. For smaller details start from a smaller base size of 4px.

Other settings: 100% Flow and 30% smoothing.

The stickers and the characters will also have a **paper-like outline** shader to make them stand from the background and make them look like an actual sticker.



Scale and proportions

The animals don't have their real life scale, but some characters will be slightly bigger than others, just like some kids are bigger than others in real life.

The stickers have more or less the same size. We try to make stickers from objects that **don't go too far from that scale**.

F.E: NO car, NO blackboard, NO pin ecc...

We also take into account that the player might change the size of the stickers.

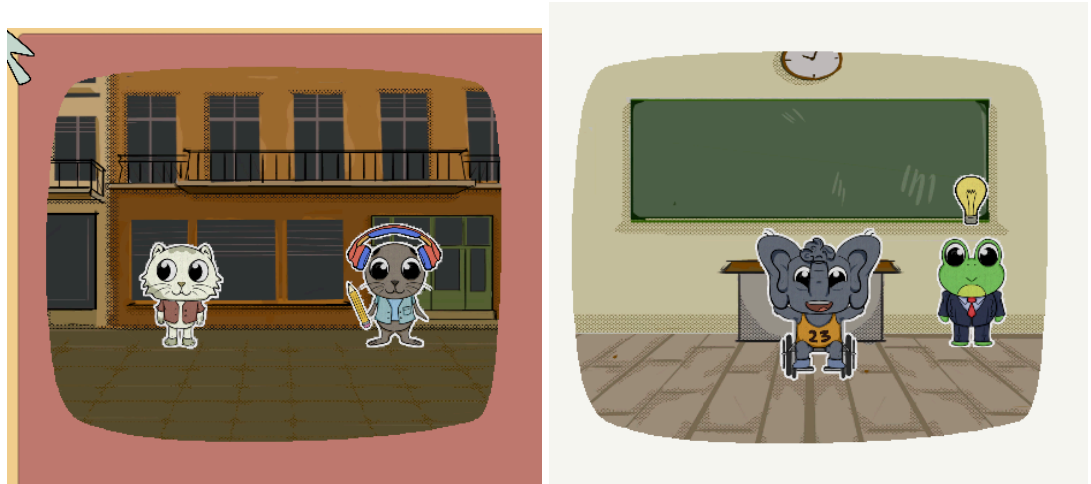
Characters have big heads and small anthropomorphic bodies.



Colours

Saturated colours for the **characters** and stickers. **Muted** colours for the **background**. - This is done to add contrast between the backgrounds and the stickers. Since the players can edit the stickers, not the background. This contrast is also portrayed by giving the stickers a white outline with the help of a shader

eg - here you can clearly see what is editable and what is not

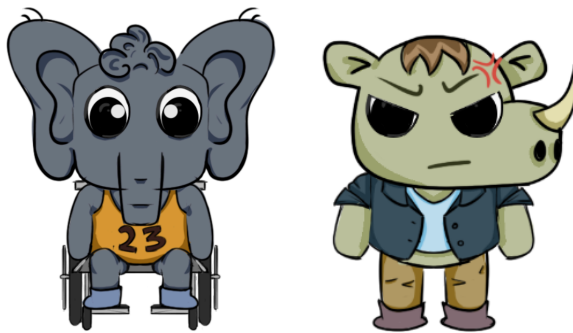


When colouring the stickers we stick to the real life colours, but when given freedom to choose, we create as much **hue variation** as possible. In this way the sticker selection panel looks varied and colourful, suggesting a big freedom for the player. Players will choose most of the colours from the screen.



Shading/Lighting

Cell shading for the characters - We mostly stick to flat colors however to give some depth to the characters Cell shading is used for the shadow parts.



Halftones used to shade the backgrounds. as mentioned before

Characters emotion

Characters' emotions are made through photoshop **puppet warp**. And by changing the facial expressions of the characters - ie, Happy is portrayed by slightly crinkling the bottom part of the eye and drawing a smile.

Additionally Sparkles in the eyes are also added to portray emotions for every emotion except anger.

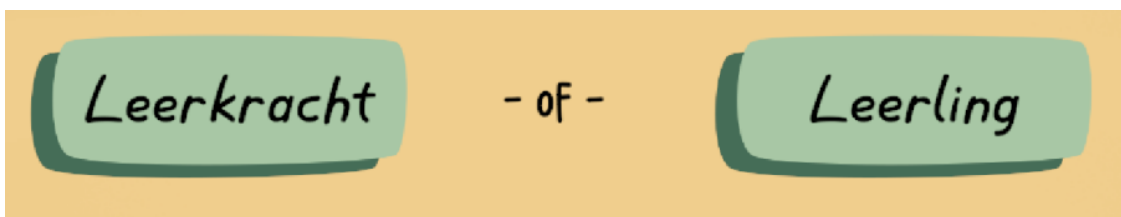




UI

Will follow a consistent palette to make it recognizable. Follow the shape language of the rest of the assets but with **no outline**.

Main color palette of the UI -



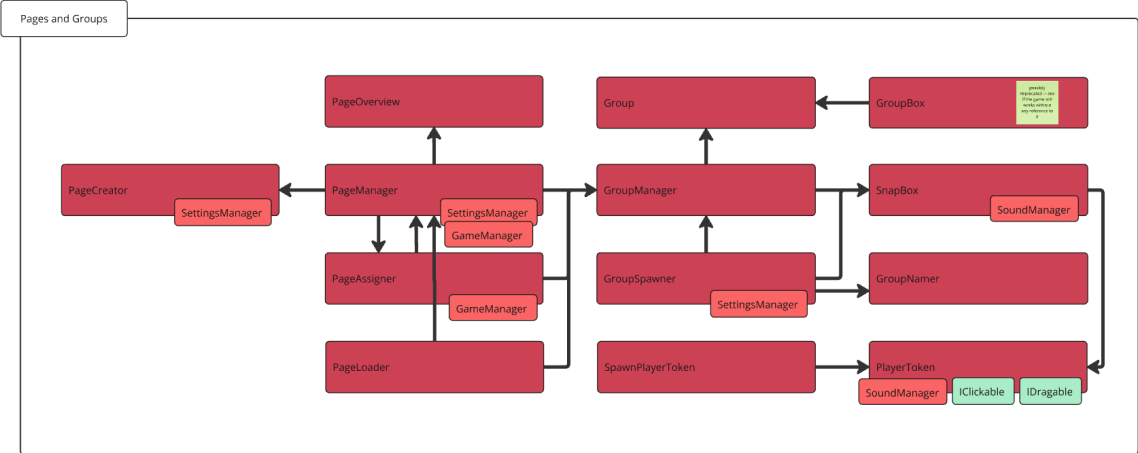
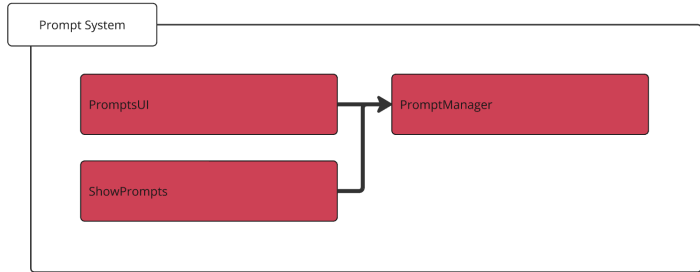
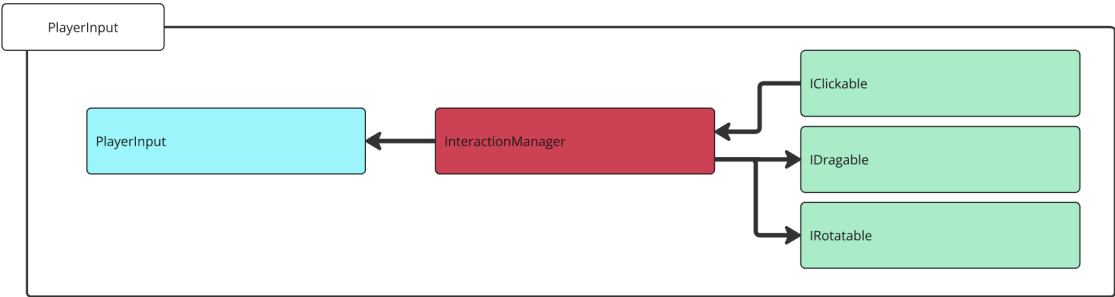
Tech analysis

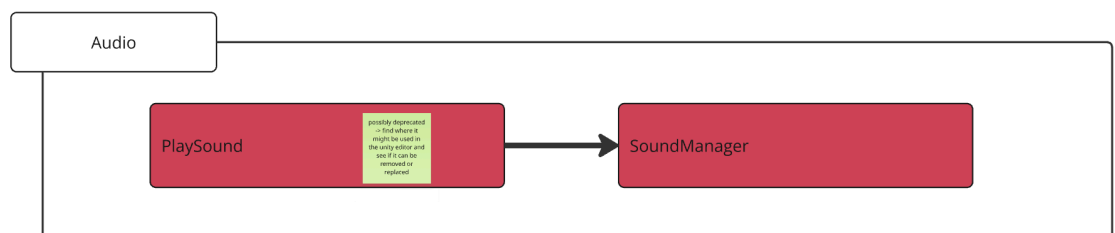
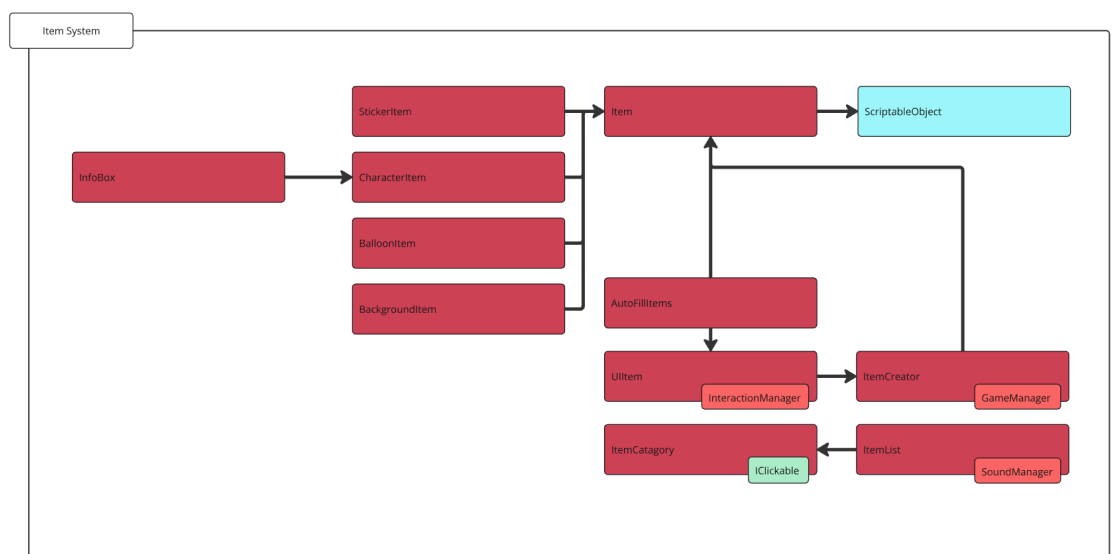
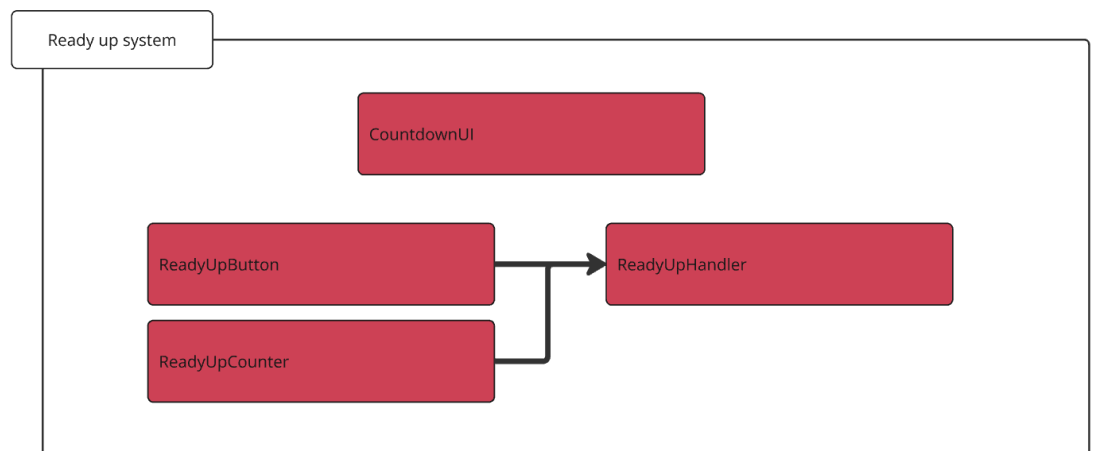
You can freely explore it in this miro board:

[Tech analysis Inkt&Pootjes](#)

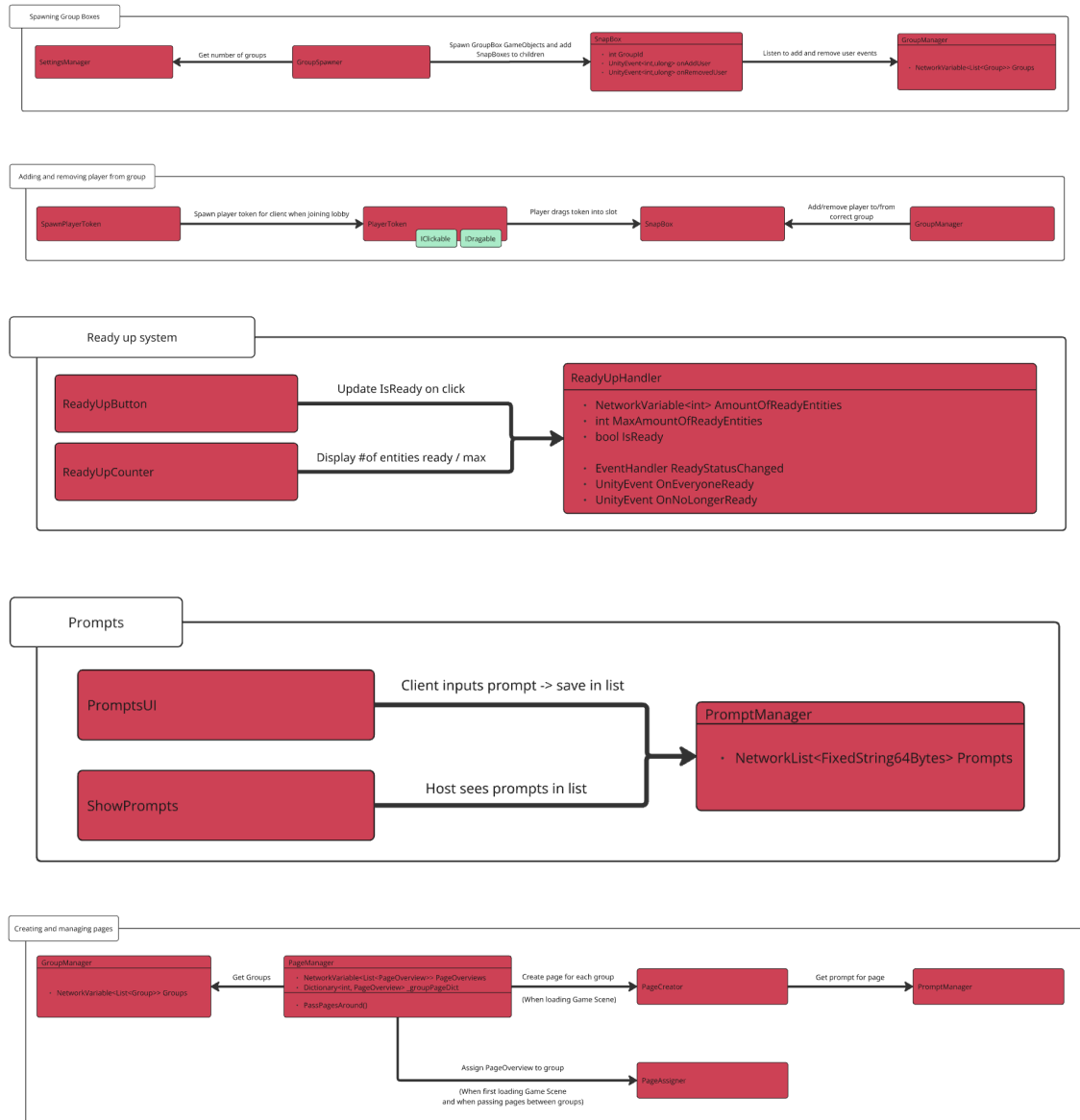
Or you can read through it in this document. (zoom in if necessary)







Example uses





Overview of the Project planning and follow-up

Roles and client communication

We started by dividing the roles in our team:

- Stefano: producer.
- Sophia: programmer and client communication.
- Sky: programmer.
- Trisha: artist.
- Facundo: designer and writer.

I normally would have taken care of client communication, but since our client didn't feel comfortable speaking English, we decided to delegate that task to Sophia, who is a Dutch speaker.

We decided to cope with that in the following way:

- Sophia would have received mails from the client and translated them to us.
- Sophia would have written the email in english, so we could proofread them. She would then translate them and send them to the client.
- During the meeting Sophia would have spoken with the client and Sky would have live-translated the conversation to us on a discord thread.
- After the meeting Stefano would have compiled the meeting report in english, sent it to Sophia for translation and then she would have sent the report to the client.

Luckily we found a good reliable tool in DeepL to avoid having Sophia manually translate everything.

Later on, when the programming work became heavier, Stefano took on the client communication, so that Sophia had less load on her.

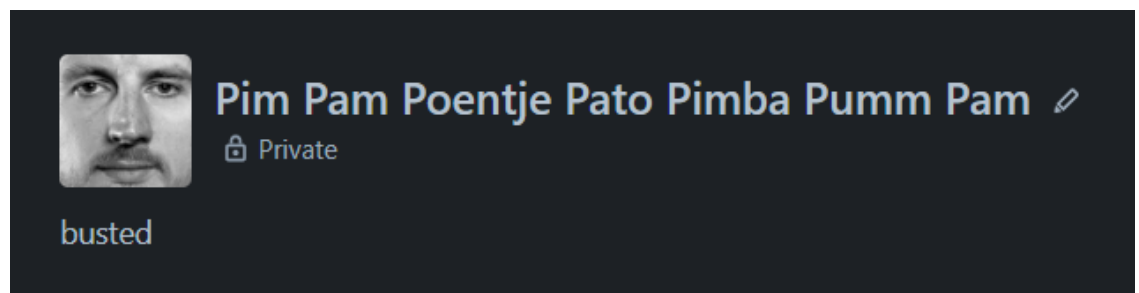
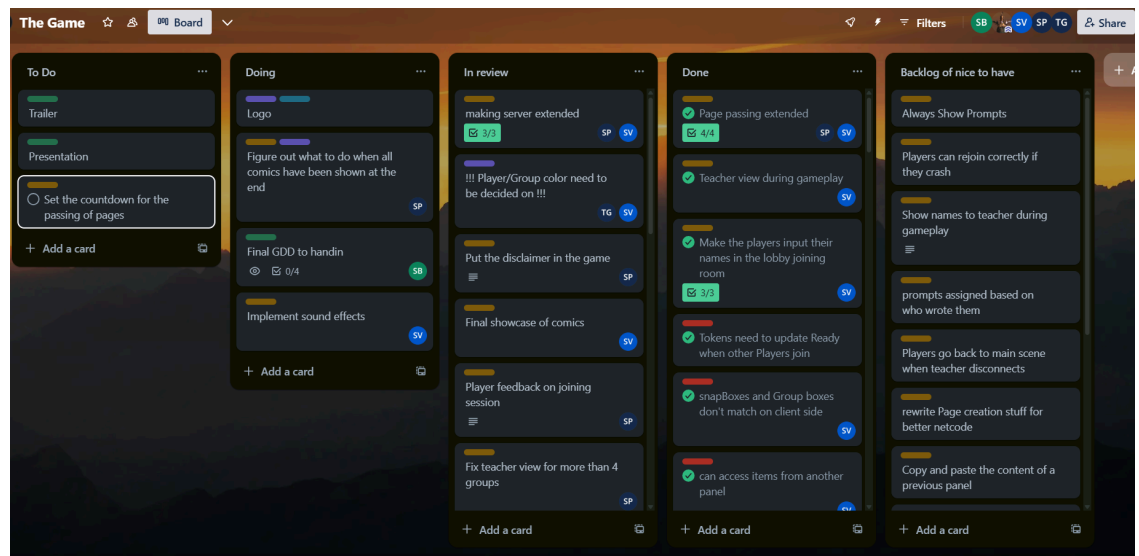
Early planning

To better organise our work we decided to set up a kanban board on Trello.

The tasks could be flagged with the type of work was needed to do:

- Blue for 2D assets
- Yellow for programming

- Purple for design/discussion with the team (since this tasks usually require more than one team member)
- Green for documenting
- Red for bugs



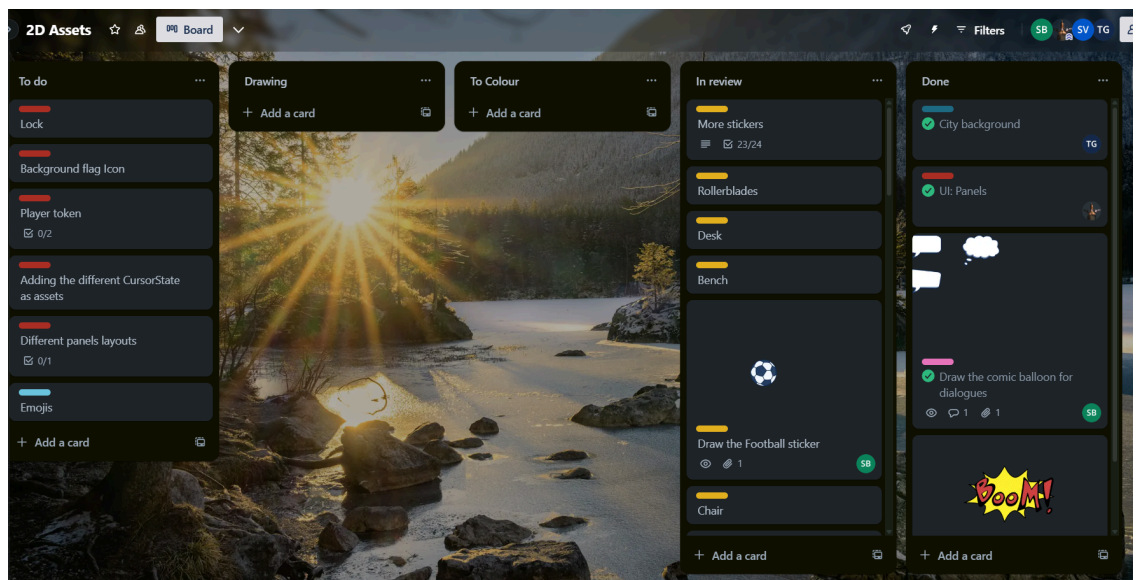
We also set up a spreadsheet to keep track of the work done and the work to do using mandays. The spreadsheet also helped evaluate the feasibility of the project.

Easter holidays

For the Easter holidays we needed to catch up on some work so we organised in order to be as productive as possible and set our priorities.

We evaluated together with the programmers what needed to be done to reach a playable version of the game.

We were behind with the production of 2D assets, so we decided to make a kanban board on Trello specifically for 2D assets. This allowed it to track the pipeline of 2D assets production much better, and also allowed for other members to step in when needed.



We also used a spreadsheet to calculate how many assets are needed and how much time it takes to make them.

Object list:	Done?	UI list:	Done?	Comic effects list:	Done?	Backgrounds	Done?	Characters	Done?
Football	0,5	UI panels		BOOM	1	School	1	Rhino	1
Wheelchair	1	UI Icons	1	SPLAT	1	Background 2		Cat	1
Scissors	1			Cloudy balloon	1			Frog	1
Pills	1			Round balloon	1			Seal	1
Glass of water	1			Spped lines	1			Elephant	1
Headphones	1								
Paper plane	1								
Joystick	1								
Pencil	1								
Book	1								
Hearing Aid	1								
Sandwich	1								
Lightbulb	1								
Toy 6									
Toy 5									
Toy 4									
Toy 3									
Toy 2									
Toy 1									
Stapler	1								
Flowers	1								
Basketball									
Asthma Inhaler	1								
Count	23	15,5	2	1	5	5	2	1	5

2D Assets planning		Assets/mandays:		2		
Asset type	Asset type count	Difficulty Multiplier:		Done	Remaining	ManDays needed
Objects	23	1		15,5	7,5	3,75
UI	2	1		1	1	0,5
Comic effects	5	1		5	0	0
Animation	0	1			0	0
VFX	0	1			0	0
Characters	5	1		5	0	0
Character emotions	15	0,266666667		0	15	2
Backgrounds	2	2		1	1	1
					0	0
					0	0
					0	0
Total	52			27,5	24,5	7,25

The calculator referenced the list of assets, so that I could update the list and see the result on the time estimation.

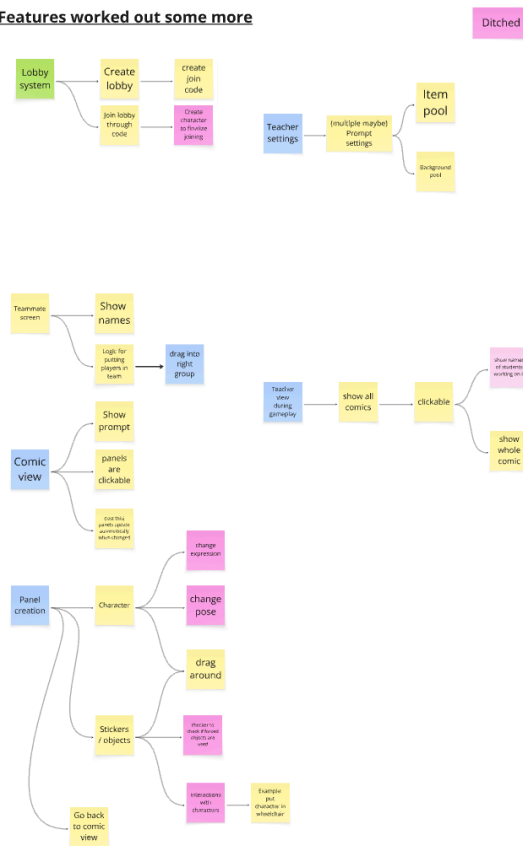
The numbers you see might not be accurate. The numbers on the spreadsheet are supposed to see how the workload would scale up and decide consequently.

Features breakdown

After the easter holidays and the first playtest we decided to revisit the feature breakdown we have made before the vacation.

On the left the previous breakdown, on the right the final one.

Features worked out some more



Feature list



Backlog if there's time



Appendix

Playtesting

The playtesting sessions we had are described in detail in these documents:

[Playtesting session of Week 09](#)

[Playtesting session of Week 12](#)

In this document I will summarise the main takeaways from both sessions.

Takeaways

Generally positive feedback: the children liked the game and the characters. They also collaborated and communicated between each other as we expected. The social component that we really care about, is there indeed.

The game would work really well on touchpad, so it's probably a good idea to build it for WebGL.

The more stickers, the more is the fun, and also sticker variations can be interesting for the players to interact a bit more with the scene.

That's what is missing: interacting with the stickers. We should add tools for the player to play with. For example: rotating and scaling the stickers, being able to copy and paste your previous panel...

The possibility for the player to type text inside the balloons is crucial to their creativity expression. It was a good idea to implement it.

We should make the UI more clear and more pretty. The info-boxes were barely opened during the playtest, maybe we should make them more evident.

The team

This game was made by the glorious team under the name of "Pim pam poentje pato". The name comes from the union of our two silly and friendly totem animals, the ladybug and the

duck. One is spelled in West Flemish and the other in Spanish, to represent the multicultural nature of our team!

The members of this team are:

- Sky De Vilder
- Sophia De Pauw
- Trisha Gupta
- Facundo Gonzalez Pereira
- Stefano Borraccino

Logo

Title logo and icon logo:

