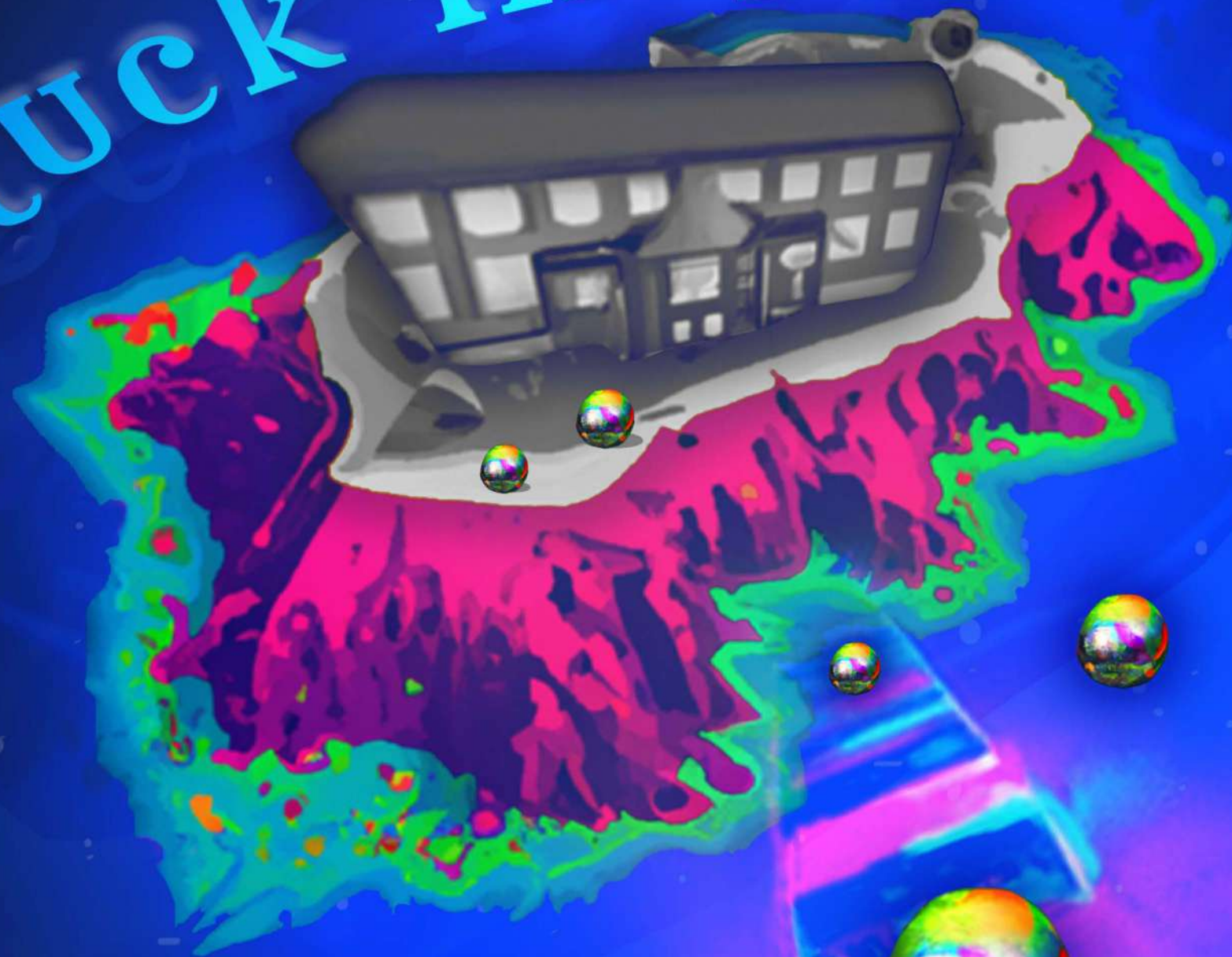


CURRICULUM IS A PLACE

Stuck in Time



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THE BRIEF

Briefing
Moving Pi

RSA

9

Moving pictures

Conceive and produce an animation to accompany one of the two selected audio files that will clarify, energise, and illuminate the content.

To create an engaging VR animation experience for a public audience and the education policy makers based on the audio transcript as part of the RSA brief.

- The transcript is an excerpt from a discussion by Jeffery Boakye about dismantling racism in British education.
- It aims to bring light into the lack of conversation of social justice within the British curriculum.
- He believes school is where “historical narratives, assumptions, and distortions re explored, interrogated, and challenged” (RSA, 2022) and hence, there is a need for curriculum change.

Drawing on his experiences as a black teacher and student, author Jeffrey Boakye argues that if we are to create a socially just future for everyone, the school curriculum must be a place where historical narratives, assumptions, and distortions are explored, interrogated, and challenged.

To address and illuminate the issue of lack of awareness of social justice in the British

- To conduct a background study of the transcript surrounding the issue of social justice.
- To deconstruct and understand the audio transcript.
- To develop a creative narrative using metaphors.
- To study previous VR animation works.
- To explore the technological options in creating a VR animation.
- To develop the prototype and testing it by conducting interviews

*In one interview, he mentions how one of the only books where his children gain awareness of race is the 1960's *To Kill a Mockingbird*, the same text he studied for O-levels a decade earlier. He questions why there has been so little change since then and comments that "They call it a 'canon', which, as far as I can work out, is a euphemism for 'things no one can be bothered to update.'" (Boakye, 2022).*

45% of primary school teachers and 64% of secondary school teachers responding to a House of Parliament Petitions Committee (2021) survey disagreed with the statement: "The National Curriculum ensures that students in my school experience a balanced range of ethically and culturally diverse role models."

*Keegan was appointed the Secretary of State for Education on 25 October 2022 (GOV.UK, n.d.)
The Education Foundation (2011) is set up to accelerate and create beneficial changes in the British education system.*

[illegible]

Theme - Prison-like | Monochrome | Monotonous | Repetition due to lack of free-thinking



The Education Foundation

APPROACHING THE BRIEF

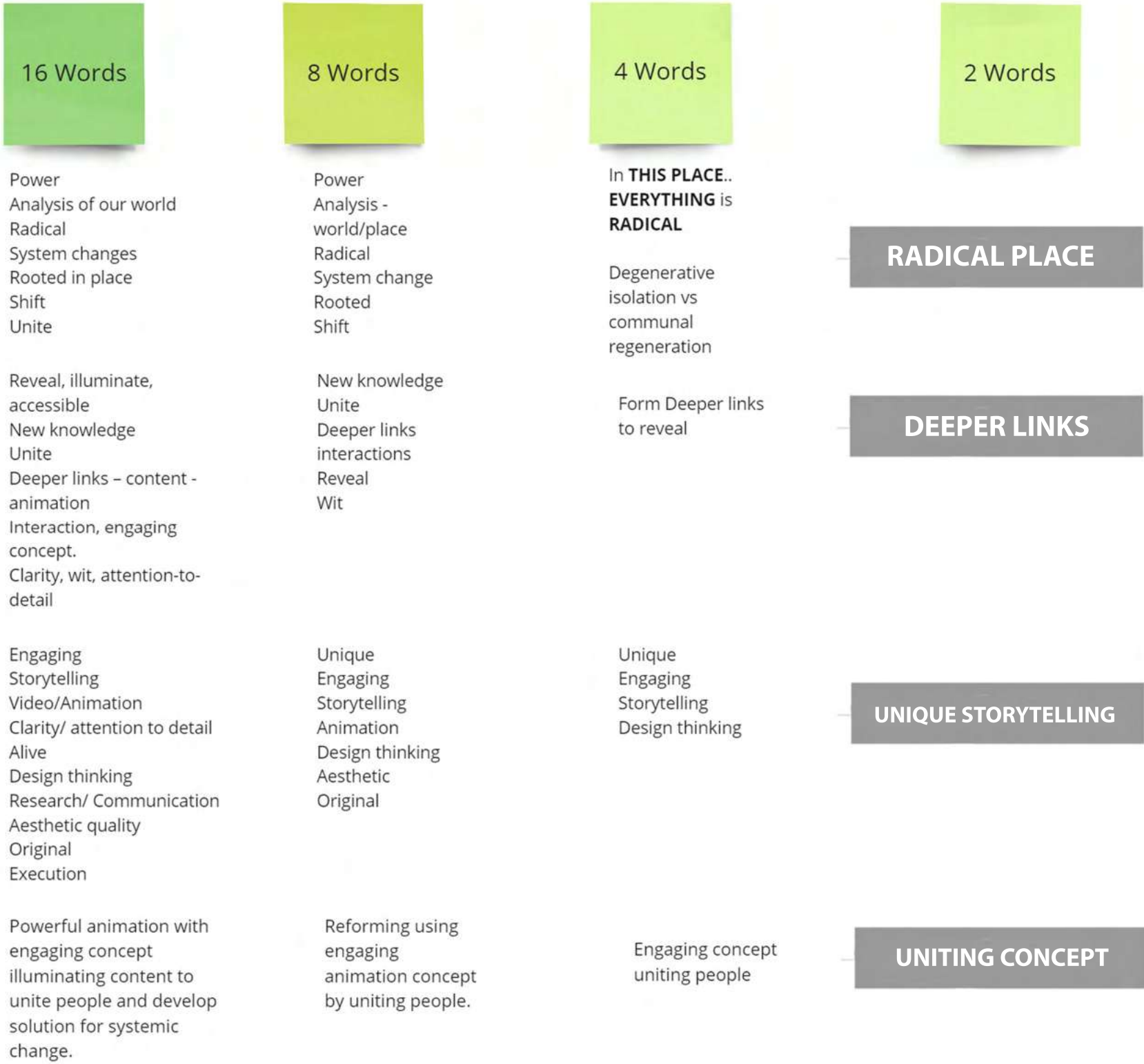
RESEARCH The first step in our approach was extensive research on the topic, the speaker, and the audience. We analysed the audio transcript and the speaker's perspective to understand the core message and key takeaways. Audience consideration involved asking questions like who are we trying to educate or introduce to this topic. Our research also involved understanding the nuances of the issue and the best way to approach the storytelling in the animation that will enrich its content and make it come alive. To inform our approach to the design thinking process for our work, we conducted research on the creation of "Dear Angelica," a VR short film, using it as a case study examining its art styles, storytelling techniques, animation techniques and technologies.

PRODUCTION Once the storyboard was finalised, we moved into the production phase. We researched and explored different ideas and approaches to create a 3D animation that is both immersive and thought-provoking. Drawing on our case study, we adopted the "made in VR for VR" concept for production to breathe life into the animation and offer an immersive experience to viewers. Each member of the team was assigned a specific scene to generate, and we utilized Open Brush and other video editing tools to create a 2D-3D animated prototype with illustrative 3D graphics. We then evaluated and iterated on the prototype to enhance the visual quality.

IDEATION Based on our research, we spent a considerable amount of time coming up with an engaging concept and ways to produce it to the best of our abilities. Our goal was to create deeper links between the content and the animation using abstract and metaphorical representations of our insights with the aim to avoid stereotypes and obvious visual references to create a more engaging and informative concept. Through a comprehensive developmental process that included transcript analysis, ideation, and concept selection, we arrived at the core concept. Through a voting exercise that entailed choosing the strongest aspects of each team member's idea presentation, the group collaboratively decided on the plot, setting, tone, theme, characters, and scenes for an enthralling storyboard. We considered the audience while developing our concept to ensure that it is relevant and engaging with the aim to educate and introduce new audiences to the subject matter.

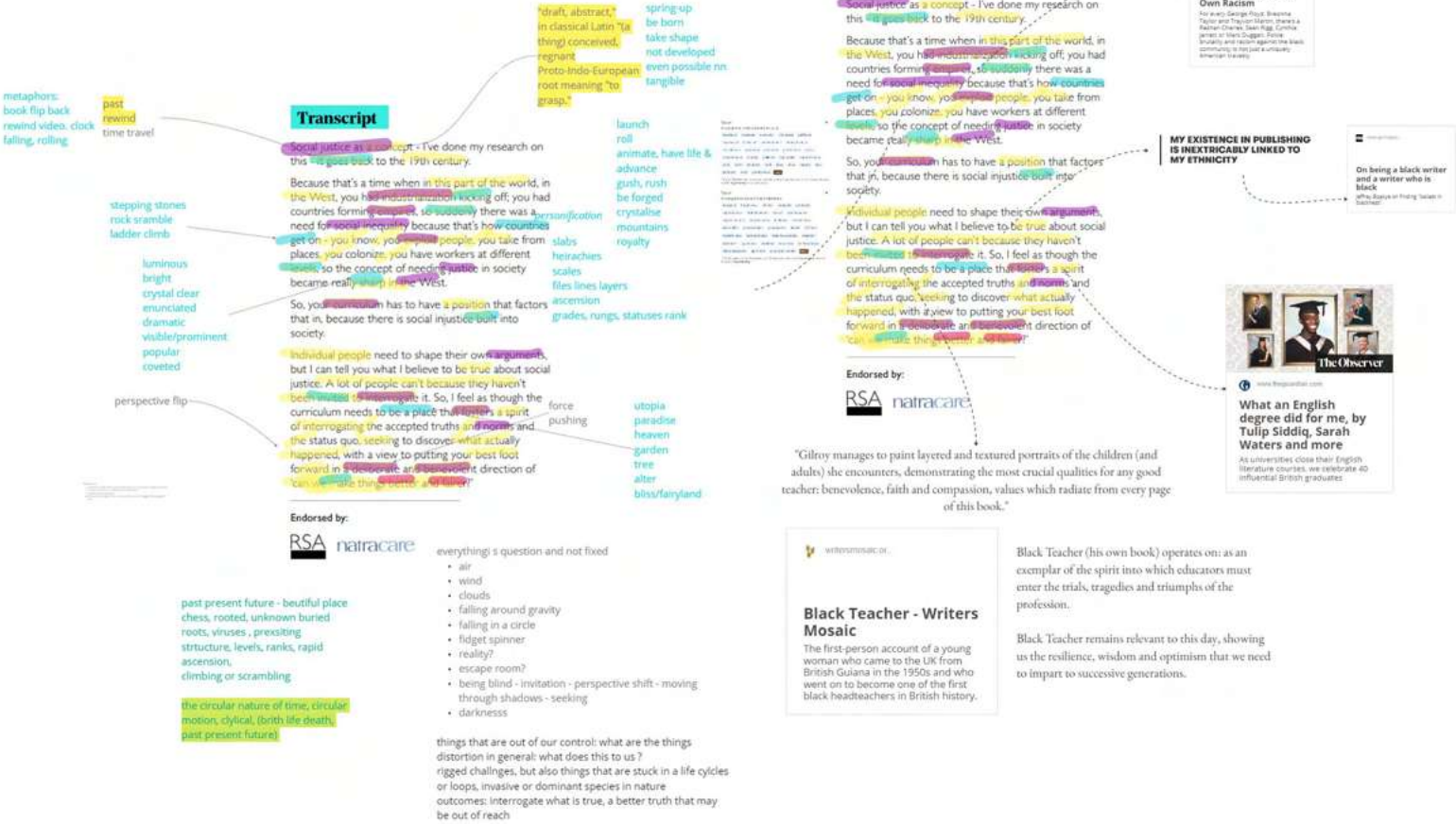
REDUCE AND REFRAME EXERCISE:

The "Reduce and Reframe" exercise was used to distill complex or lengthy briefs into concise and memorable summaries. By gradually reducing the number of words used, it brings focus on the core essence of the brief and identify the most important aspects. This exercise helped to have a shared understanding of the project's purpose, goals, and constraints, leading to more effective and efficient decision-making and problem-solving.

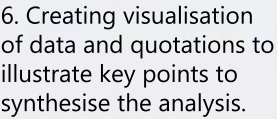
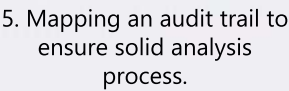
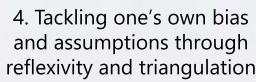
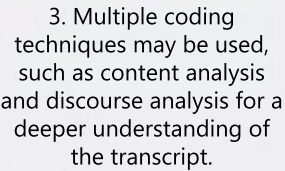
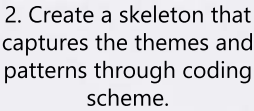
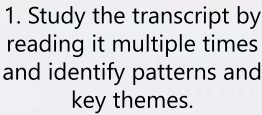


SCRIBING: AUDIO ANALYSIS TECHNIQUE BY ANDREW PARK

It was essential to study how the audio transcript need to be approached. Each member of the team followed a combination of Park's and Tracy's methods of breaking down the transcript and creating metaphors and concepts.



This article gives a detailed introduction of how to analyse qualitative data, especially transcripts. 6 of the most relevant key points are listed below.



Interrogate the truth

Social Justice and the Curriculum Drawing on his experiences as a black teacher and student, author Jeffrey Brooks argues that if we are to create a socially just future for everyone, the school curriculum must be a place where historical narratives, assumptions and distortions are explored, interrogated and challenged.

have since
to lay a hold of

Transcript:

learn for distribution of wealth, opportunities,
surviving closely

Social justice as a concept - I've done my research on this - it goes back to the 19th century

Because that's a time when in this part of the world, in the West, you had industrialization taking off, you had countries fighting empire, so suddenly there was a need for social inequality because that's how countries got on - you know, you exploit people, you take from places, you dominate, you have workers at different levels, so the concept of needing justice in society became really sharp in the West.

running culture - power center

So, your curriculum has to have a position that declares that in, because there is social injustice built into society, individual people need to shape their own arguments, but I can tell you what I believe to be true about social justice.

A lot of people can't because they haven't been invited to be pleasant towards... look.

interrogate it.

running
entireness, heat

So, I feel as though the curriculum needs to be a place that fosters a spirit of interrogating the accepted truths and norms and the status quo, seeking to discover what actually happened, with a view to putting your best foot forward in a deliberate and benevolent direction of "can we make things better and fairer?"

needed take or to unfairly receive - received without

order - existing state of affairs - the state in which before, state of affairs previous

political condition.

guide, keep straight

done consciously and intelligently - universally balance, scales.

author, teacher, reader + writer about race, masculinity + gender culture from Britain

colonies used to make another place for racial dependency - colonial type jobs

privileges in society

gender?

integrate culture into life

learning from industry aptitude experienced, shake or manipulate

work - real or not developed difference in rank or dignity

gain advantage & ranks

cross examine inquire to question

road, reinforcement, renewal core

wishing to do well-disposed, kindly - good feeling.

spirits: breathing, breath of life, breath of God, gift animating or vital

faith localities, being this

- Ranks
- levels
- steps
- A term for distribution of wealth, status
- Rightousness
- Morals
- Truth

Concept
Draft / merely a thought
Almost not real, emphasised when
he says needing - contradiction as
he says that first there was a need
for social inequality because its how
the world works but needing justice
is a concept

Accepted truths and norms again
plays on the fact that its what
most people believe to be true,
but the truth might be something
else.

Even in the ending, the "can we" asks a question in a sceptical tone

UNDERSTANDING STORYTELLING

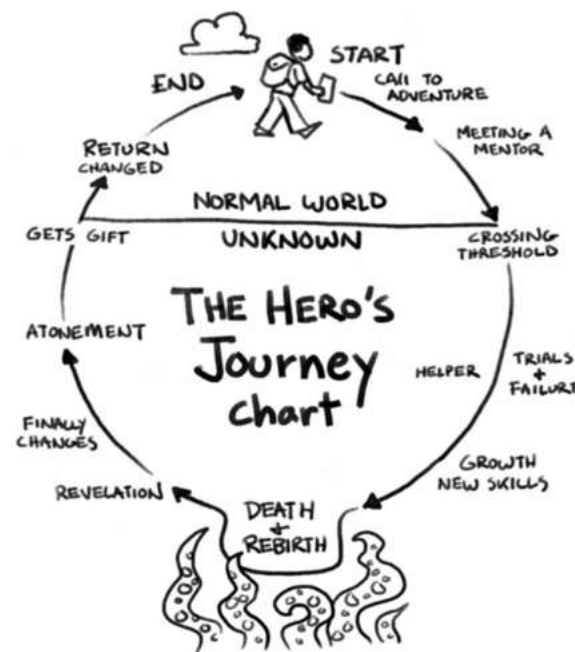
Different Storytelling framework from various sources are studied to understand the visual and emotional patterns. It has provided a structure within which each scene can be places. Although the audio transcript dictates the matter of the story, understanding this framework has helped to execute an visual theme for an engaging animation.



Payal Wadhwa: Checklist of what makes a good story

- A truth
- Emotional connection
- Shared experience- empathy
- Reframing a problem
- Intentional use of Media
- Pace, rhythm and tone
- One killer memorable scene that would help the judges remember
- Audience

The Hero's Journey and The 12 Phases



1st Act (The Known)

1. The Ordinary World
2. Call to Adventure
3. Refusal of The Call
4. Meeting The Mentor
5. Crossing The Threshold

2nd Act (The Adventure)

6. Tests, Allies, Enemies
7. Approaching The Inner Cave
8. The Ordeal
9. Seize The Reward

3rd Act (Chance to Make It Right)

10. The Road Back Home
11. Resurrection, Atonement
12. Return with The Elixir

The journey follows a circular path that includes a 'procedural' environment.
Image credit to Kanbanazie.

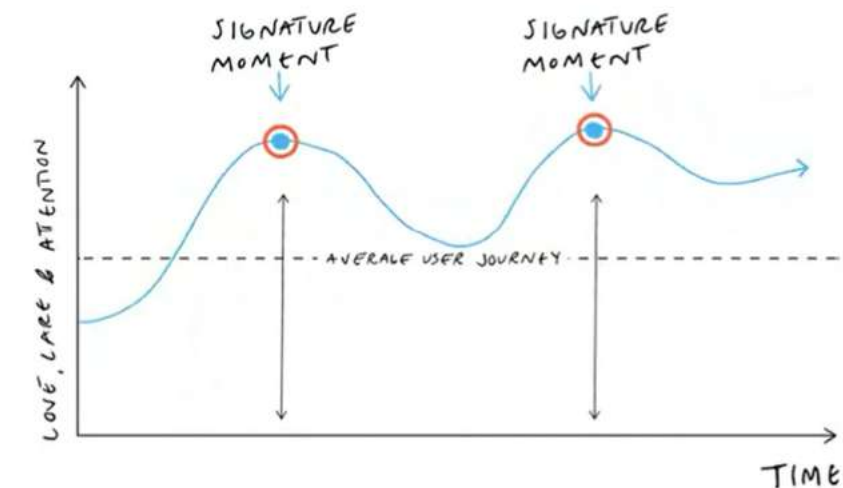
Four Essential Properties of Digital Environments

The digital environments are-

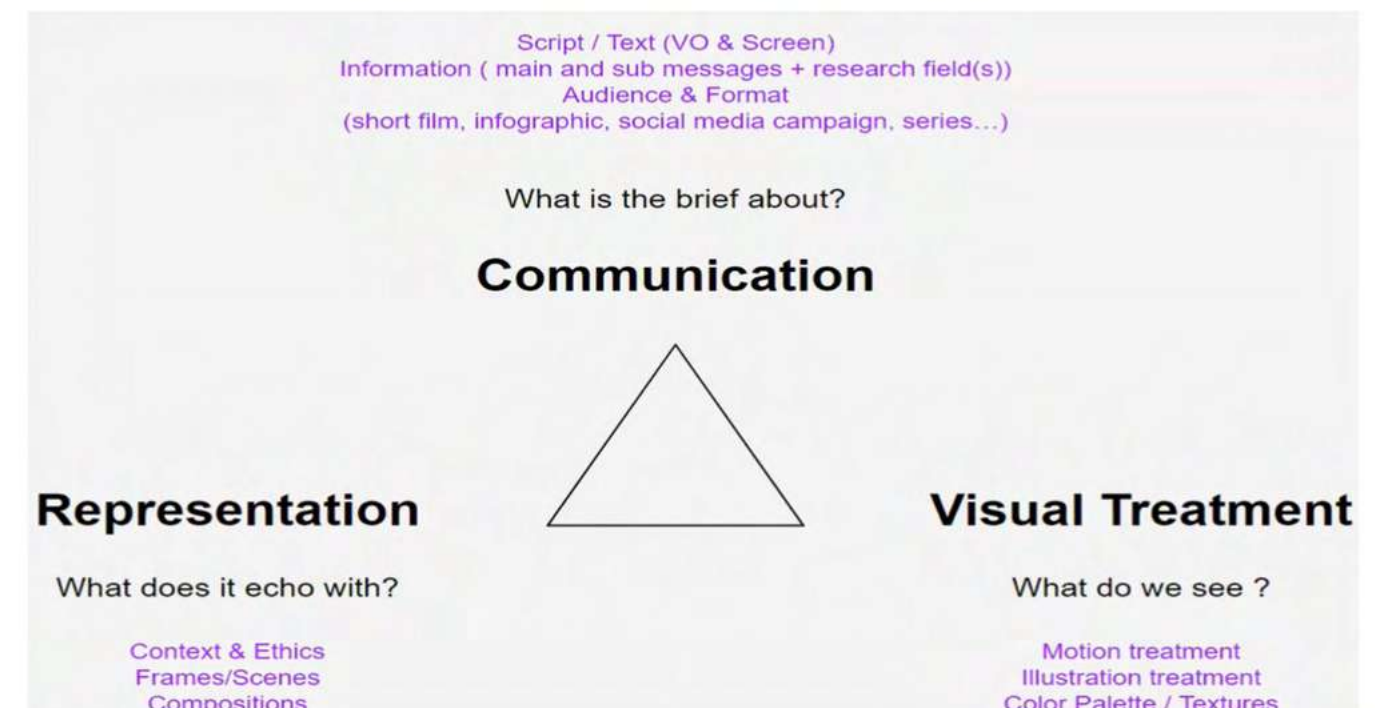
- Procedural
- Participatory
- Spatial
- Encyclopaedic

Procedural and Spatial can play an important role in the story-telling for a non-interactive experience. In the Insight section, we can see how these 2 environments have been developed for the scenes.

Murray, J.H. 1998. Hamlet on the holodeck : The Future of Narrative in Cyberspace. Cambridge, Mass. : MIT Press



To maintain audience captivity, the story must have 2 signature moments.



Source : Studio Kawakeb (2023) Creative communication brief: Research, statistics/ what the animation is trying to communicate.

DESIGN RATIONAL

Choosing VR

It is increasingly becoming a tool in education and for creating social awareness due to its ability to create more immersive and engaging experiences compared to the traditional method. The aim of the project is to help the audience feel a strong sense of empathy and raise awareness about the issue.

A VR experience is not only more engaging but also novel to the public, hence it is more likely to be well-received. Crow: The Legend and Gloomy Eyes are some examples of successful VR animated films made to bring awareness to social issues.



Crow: The Legend
This VR animation is about a Native American legend that preaches the importance of balance and harmony in nature, and encourages the audience to build a healthier relationship with nature.



Gloomy Eyes
A VR animation of a zombie boy and a human girl who fall in love in a world where zombies and humans are at war. The story serves as a metaphor for prejudice and discrimination.



Choosing 3D animation over 2D

2D animation is more story-centred while 3D animation is more graphic-centred. In order to explore and prioritise the technological and graphical approach for animation, we decided that a 3D animation can help us learn more from the process (Business of Animation, n.d.).

3D animation also gives a more realistic appeal through its dynamics and enhances the visual appeal. Higher sense of realism can help the audience engage better with the animation. (Business of Animation, n.d.).



Source: Tangled (2010)

Choosing the Brief/Audio Transcript



'Change is necessary' by Sarah Ichioka
Design paradigms for a regenerative future.



'Interrogate the Truth' by Jeffrey Boakye
Dismantling racism in British education

We found that Interrogate the Truth supported a better potential for visualisation for an animation and provided a stronger cause through conversations. The transcript carried a strong sense of emotion and urgency for change - which bolstered the ideation process of the animation.

In order to understand the emotions tied to the problem, we analysed the target audience and the arguments of the narrator/author. Emotion is studied through Geffrey's own experience as a black teacher.

Digital Environment

Out of the 4 digital environments (Murray, 1998), we were able to adopt Procedural and Spatial environments to create an immersive experience.

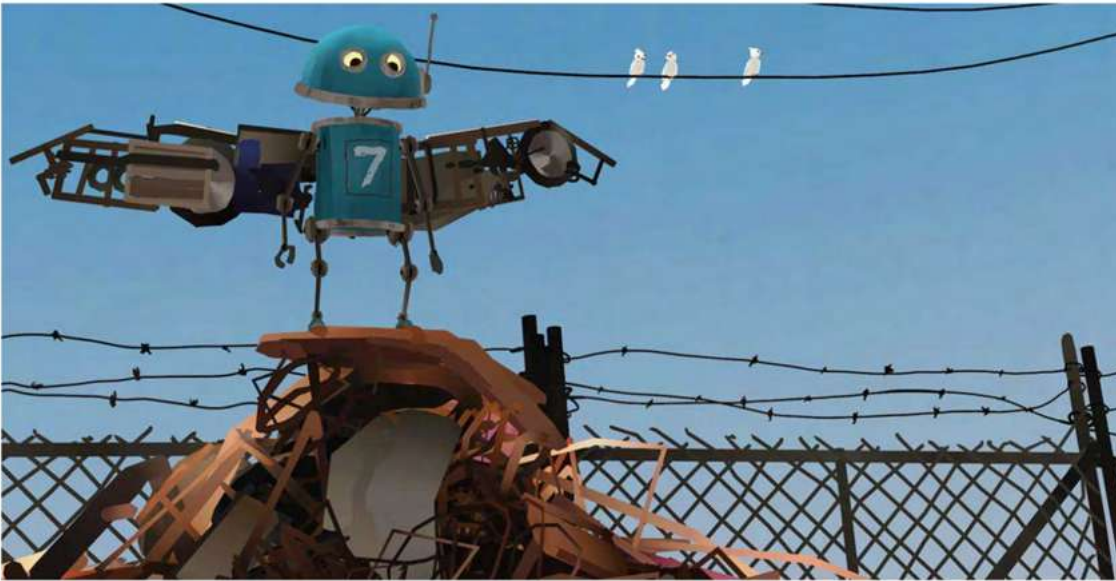
Procedural - to emphasise the metaphors, a fantasy world was created that was not tethered to the physics laws. The characters are shown in abstract form.
Spatial - Scenes of city, school and classroom were created to look more explorable.



Procedural Environment | Source: No Man's Sky



Spatial Environment | Source: Mass Effect 3



Source: Beyond the Fence - Goro Fujita

Robot working in a junkyard
curious about the world beyond the fence

-Quill
- Art style - entirely hand-drawn
- Lighting (night scenes) drawn in by artist --used the "Colorised tool"

- Multi-user consumption up to 4 people
- 8 vignette - each can be viewed at your own pace
- each vignette exposed from 4 different angles
- users experience story differently -- collaborative viewing experience

CASE STUDY - DEAR ANGELICA



What - A VR animation short film created by Oculus Story Studio that tells the story of a daughter reflecting on the life and legacy of her mother, Angelica (Chevalier, 2017).

Why - Angelica is a powerful example of how VR technology can be used to tell compelling stories and create new forms of expression in the field of animation (Ji, 2020).

VR Interactivity: VR technology allows the audience to feel as though they are inside the film, and allows for a level of immersion that is difficult to achieve in traditional animation (Syrett et al., 2017). This makes it easier for the audience become emotionally invested in the story ((Hood, 2020). The viewer is placed in a virtual environment and is free to look around and explore the world at their own pace (Hood, 2020). The film's story is told through a series of illustrations that come to life and move around the viewer creating an immersive experience (Oculus, 2017; Chen, 2016).

Spatial Sound: use of 3D sound design in which the sound changes as the viewer moves their head, giving the illusion of being in a 3D environment (Johansson, 2019). The sound design in the film is carefully crafted to complement the visuals and enhance the emotional impact of the story. For example, the sound of a heartbeat is used to emphasize the intense feelings of the main character (Syrett et al., 2017).

Art Styles (Oculus, 2017;Chen, 2016):

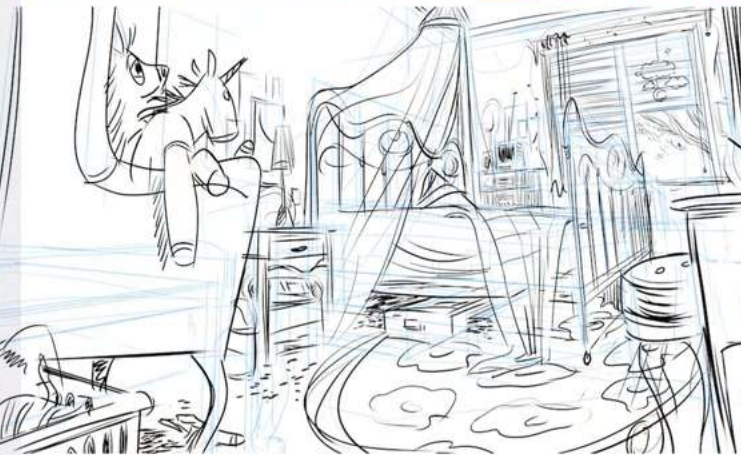
"Hand-drawn animation" or "2D-3D hybrid animation" created using the Quill animation tool, a painting and animation software for virtual reality used to create 3D paintings and animated cartoons. ideal for pre-visualization, concept design, storyboarding, set design and much more (Meta, 2019). Quill enables you to make important decisions at an early stage in production (Meta,2019). The film blends elements of traditional 2D animation with a more impressionistic, almost waterlike aesthetic .

Illustrations: The film explores a hand-drawn, 2D illustration style with water like aesthetics, which is brought to life in a 3D virtual reality environment.

Brushwork: The use of loose, impressionistic brushstrokes with soft, flowing lines that capture the emotion of each scene and gives the film a dreamlike quality.

Colours: The use of vibrant, rich colour helps to further convey a sense of magic and wonder.

- This award winning VR short film is completely made in VR and utilises minimal use of other softwares.
- For its storytelling framework
- Its design thinking method provides a suitable structure due to similar animation goals.



Hand-drawn Illustrations Brushwork Colours	2D-3D Animation Motion Graphics Keyframe Animation	Flashbacks Non-linear Narrative Character Development
---	--	---

Animation Techniques (Chen, 2016) :

Hand-Drawn Animation: A technique that creates a more personal and intimate connection between the audience and the story.

Motion Graphics: Use of design elements, such as illustrations, typography, and visual effects, in conjunction with animation to create a moving image. The film's opening titles and other elements are created using motion graphics, adding an extra layer of visual interest.

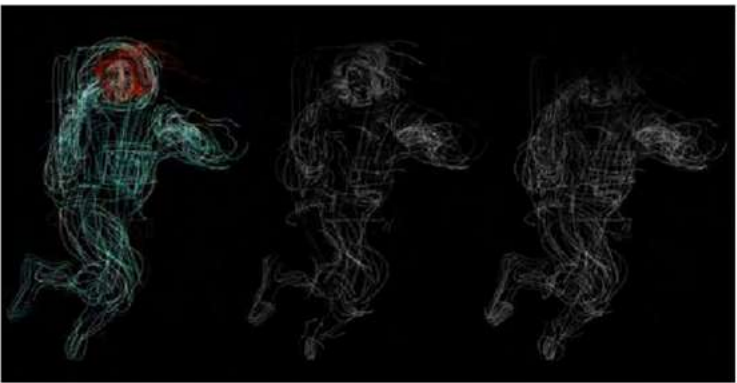
3D Animation: For objects and characters to move and interact in a virtual world. Allowing for greater detail and depth in the animation.

Storytelling Techniques (Roettgers, 2017):

Flashbacks: To show glimpses of the mother's past and how she impacted the lives of those around her. They are depicted in a dream-like, impressionistic style, and are often triggered by the daughter's memories as she writes a letter to her mother. Through these flashbacks, the viewer is able to gain a deeper understanding of Angelica's character and the relationships she had with those close to her.

Non-linear Narrative: employs a non-linear storytelling approach, jumping back and forth between different moments in time with memories overlapping each other. Helps to create a sense of

Character development: The film places a strong emphasis on character development, using the flashbacks and non-linear storytelling to show Angelica's growth and evolution over time. Through the memories of those who knew her, the viewer is able to see the different sides of Angelica's personality, has a full understanding of who Angelica was as a person and how she left a lasting impact on those around her.



Metaphor used - the mother's fight against her illness is shown through the depiction of a monster.

The fight scene draws out around the viewer, getting closer and closer until it feels almost claustrophobic (Roettgers, 2017).

CASE STUDY - DEAR ANGELICA



VR CASE STUDY ANIMATION FRAMEWORK:

As a key component of our animation project's strategy, we incorporated the design thinking process. To inform our approach and gain valuable insights, we thoroughly examined *Dear Angelica* (2017), a VR short film, as a case study, focusing on its art styles, storytelling techniques, animation techniques, and technologies. By analyzing these factors, we aimed to identify best practices and apply them to our own project for optimal results.

We incorporated the techniques utilized in *Dear Angelica* (2017), a VR short film, as a strategy for our animation design. This powerful example showcased how VR technology can be leveraged to tell compelling stories and create new forms of expression in the animation field (Ji, 2020). By immersing the audience within the film, VR technology facilitates a heightened level of emotional investment (Syrett et al., 2017). Additionally, we drew inspiration from the film's carefully crafted sound design, which complemented the visuals and contributed to the story's emotional impact. (Johansson, 2019)

Design Thinking and Strategy

1. EMPATHY

To understand the user's needs, emotions, and experiences. To create a meaningful and impactful story, the designers at Oculus Story Studio conducted research and interviews with people to understand their relationship with their mothers and to get a deeper understanding of the emotions involved in these relationships (Thomas et al., 2017).

2. IDEATION

Once the designers had a clear understanding of the user's needs, they started to brainstorm and come up with creative ideas to bring the story to life. They explored different art styles, techniques, and technologies to find the best way to tell the story in a VR environment (Oculus, 2017).

3. PROTOTYPING

Designers used storyboards, sketches, and other visual aids to communicate their ideas and bring the story to life (Roettgers, 2017). They also created rough animations and used VR simulations to test and refine the experience (Chen, 2016).

Animated stroke by stroke, with individual lines of the animation being drawn out to direct the viewer's attention as the story unfolds around them (Roettgers, 2017).

4. IMPLEMENTATION

Designers used Quill Animation tool/ Houdini and Unreal Engine to create a seamless and immersive experience (Chen, 2016).

5. USER TESTING

Conducted user testing to gather feedback and make any necessary adjustments. They used VR headsets and other technologies to immerse users in the story and observe their reactions, behaviours, and feedback. Based on the feedback from user testing, the designers made refinements to the story and the experience. They continued to iterate on the design until they were satisfied with the final result.

SOFTWARE EVALUATION

The available softwares are explored to understand their pros and cons and determine the suitable option for our project. 4 softwares are shortlisted as they do not demand the requirement of other softwares to complete the project. In the Iteration section, we pick the most suitable option based on accessibility, time constraints, and ease of use.

	Platforms			Feature Focus		
	Quest	PC VR	PSVR	Drawing	Modeling	Animation
Tilt Brush	✓	✓	✓	✓	✗	✗
Dreams	✗	✗	✓	✗	✓	✓
Quill	✗	✓	✗	✓	✗	✓
Adobe Medium	✗	✓	✗	✗	✓	✗
Kingspray Graffiti	✓	✓	✗	✓	✗	✗
Gravity Sketch	✓	✓	✗	✗	✓	✗
Tvori	✗	✓	✗	✗	✓	✓
AnimVR	✗	✓	✗	✓	✗	✓
Blocks	✗	✓	✗	✗	✓	✗
SculptVR	✓	✓	✓	✗	✓	✗
Masterpiece VR	✗	✓	✗	✗	✓	✓
Adobe Substance 3D Modeler (closed beta)	✗	✓	✗	✗	✓	✗

Source: Source: Road To VR (2021)

Comparison between the available softwares to create the animation. Pros and cons were weighed and narrowed down to the highlighted options.

- Software - Quill
- Art style - entirely hand-drawn
- Lighting (night scenes) drawn in by artist -
- Used the "Colorised tool"

- Multi-user consumption up to 4 people
- 8 vignette
- Each can be viewed at your own pace

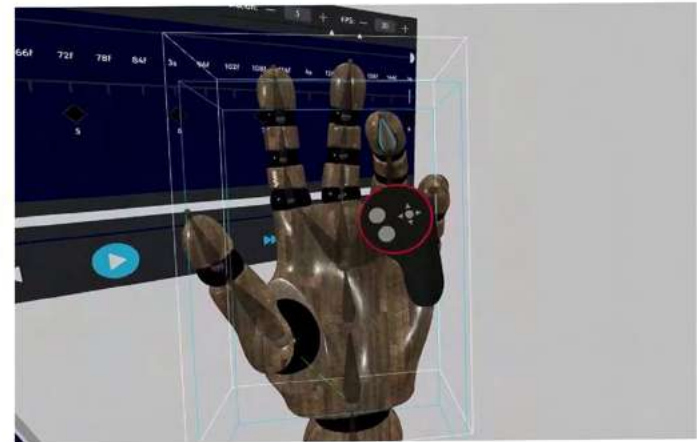
- Each vignette exposed from 4 different angles
- Users experience story differently
- Collaborative viewing experience



Source: Cyber Cry - Art Face (2021)
Animation is made using Google Tilt Brush. Movie creates movement of snow, light rays and dust to create animation. Dynamics is created using camera movement tracking the character while using a stop-motion method to move characters.



Source: Wired - Zeyu Ren (2019)
Animation is made using Quill. A handdrawn art style is used with minimum animated movement. Most of the animation is manipulated through camera tracking.



Rafi Nizam (2021)
Masterpiece VR - It allows modelling and direct rigging for animation. However, it does not allow drawing. Allows for stop-motion animation. It is not supported by Oculus.



Rafi Nizam (2021)
Tvori - Works similar to 3D modelling softwares such as Blender. Makes it possible to interact directly with the model by rigging it. Provides a similar work-flow of stop-motion animation.

CHOOSING OPENBRUSH



Various factors were considered for choosing Open Brush over Quill, Tvori and AnimVR. They included time constraints, accessibility issues for paid softwares, and availability on Quest. The Pros and Cons are listed below to identify the challenges and strengths.

- Pros**
- Ready access on Quest
 - Freedom of expressive sketching VR and quicker
 - Animation created through dynamic brushes
 - Easier execution of the animation
- Limitations**
- Does not enable animations
 - Stop-motion feature cannot be used as 'camera tracking' is available only for Tilt Brush.
 - Unable to import/export models

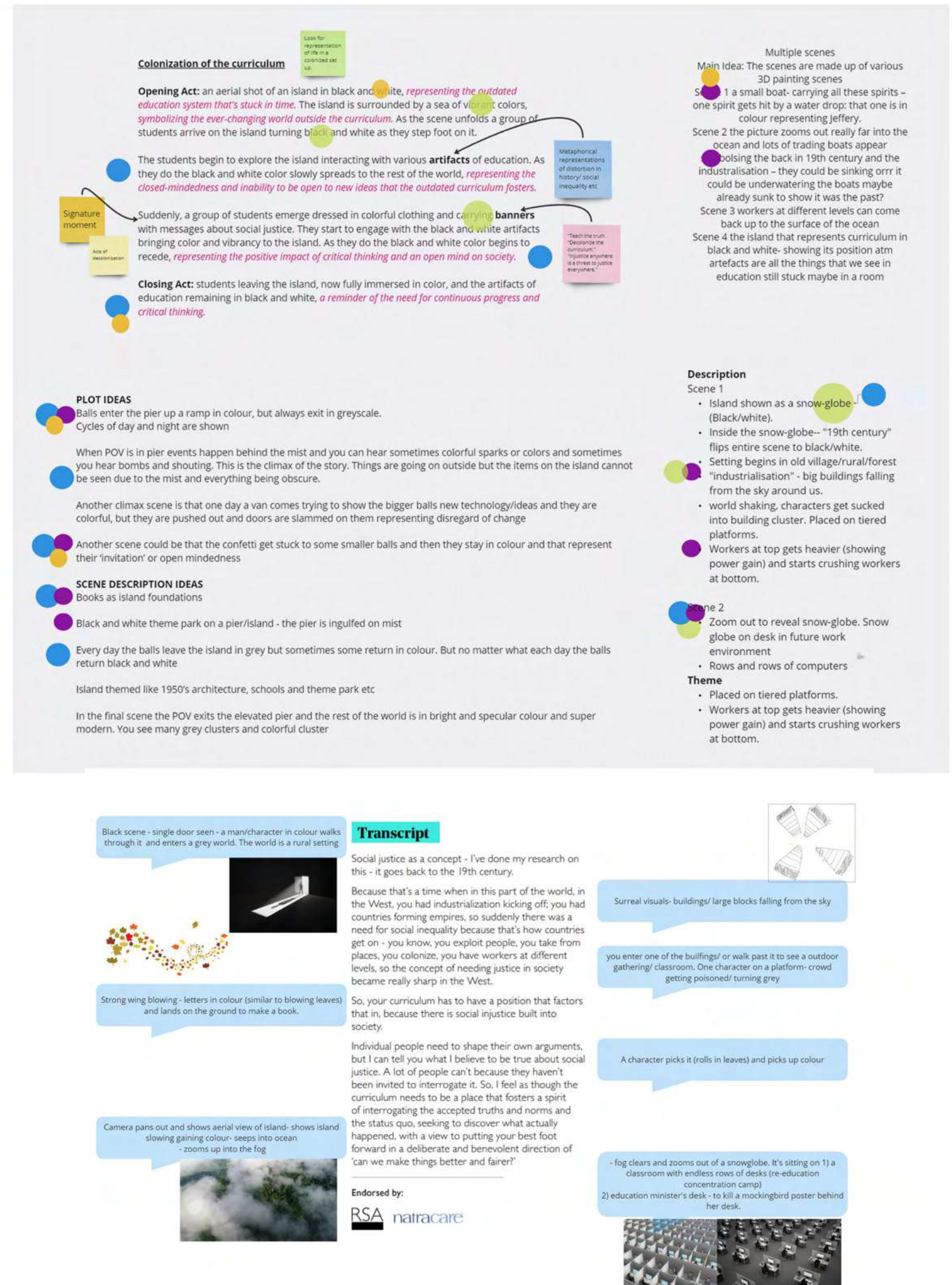
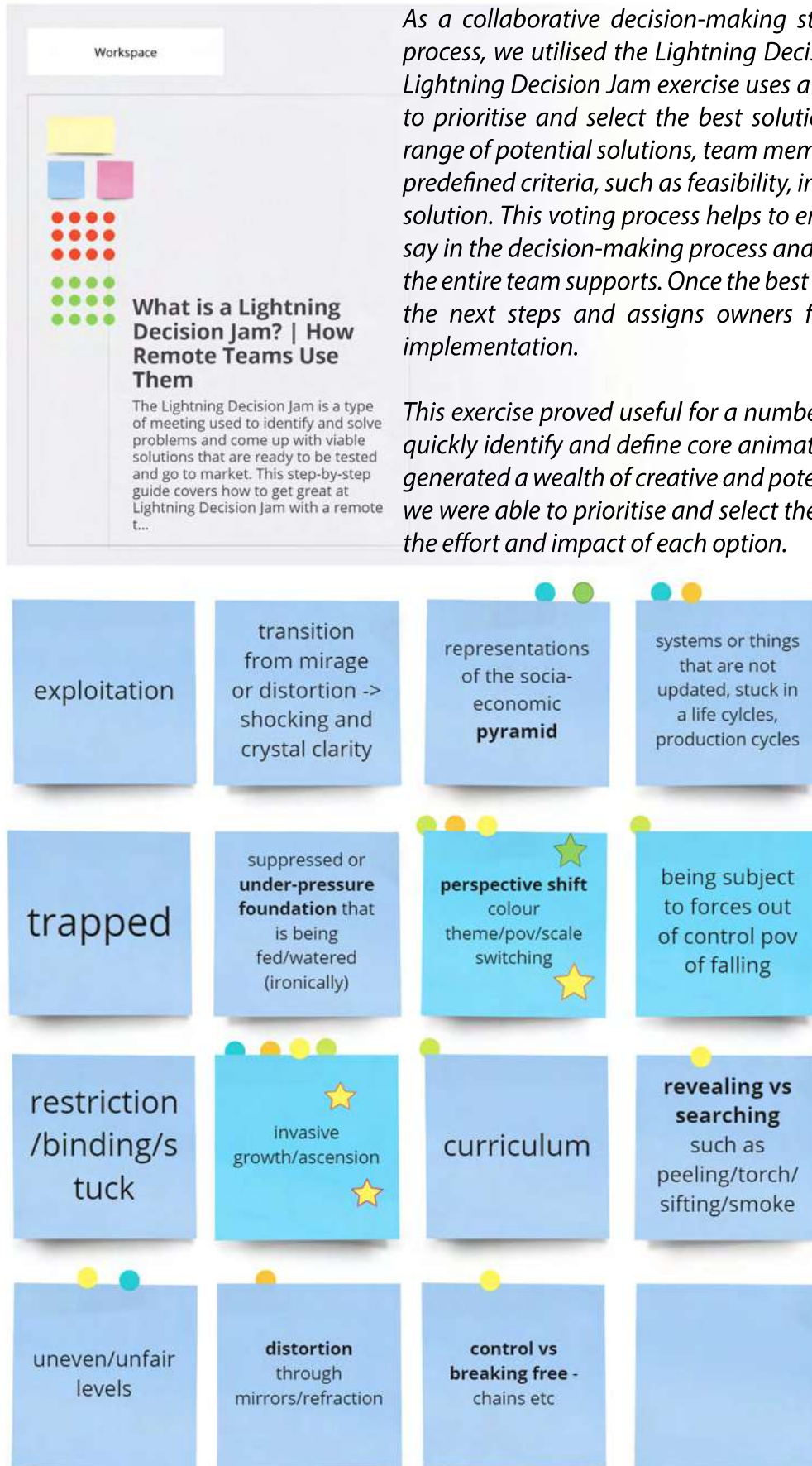
LIGHTNING DECISION JAM EXERCISE:

This exercise proved useful for a number of reasons. Firstly, it enabled us to quickly identify and define core animation concepts as a team. Secondly, it generated a wealth of creative and potentially overlooked solutions. Thirdly, we were able to prioritise and select the best solution or next step based on the effort and impact of each option.

CONCEPT SELECTION:

We utilised the Lightning Design Jam method to generate a range of potential ideas and consolidating the most popular or preferred phrases into a single, concise phrase that became the animation's core concept.

This allowed us to quickly identify and define the main focus of our animation, ensuring that all subsequent design decisions were aligned with this core concept. By using this approach, we were able to streamline the idea generation process and ensure that our animation was coherent and effective in conveying our intended message to the audience.



IDEA GENERATION- CORE CONCEPT



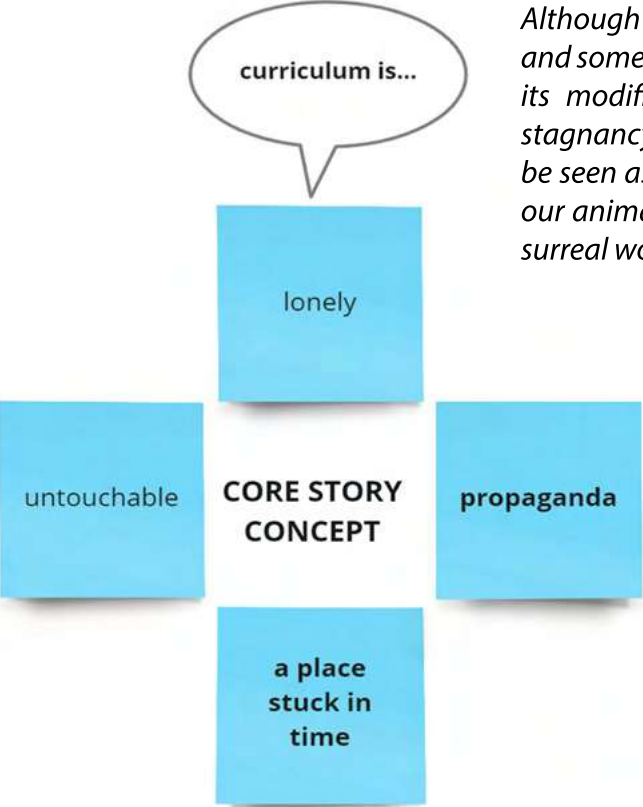
We were able to identify the deliberate silence about social injustice to be congruence with themes of propaganda. We then built curriculum related scenes along the atmosphere of a re-education camps.

CORE CONCEPT

The curriculum is a place that is stuck in time. The island, far away from the rest of the world, is the education system. The fact that it is isolated and only contains black and white artefacts is because it is not moving forward with modern society. The rest of the world is in colour. When the modern children travel to the island and interact with its objects they too turn black and white. This represents the result of an education stuck in the time of when the curriculum was set. Those who don't interrogate these events can't change them, so are shut out. However, there is an alternative path where, due to author diversity, children are able to form their own opinions about social justice. If taken, the children can return to colour.

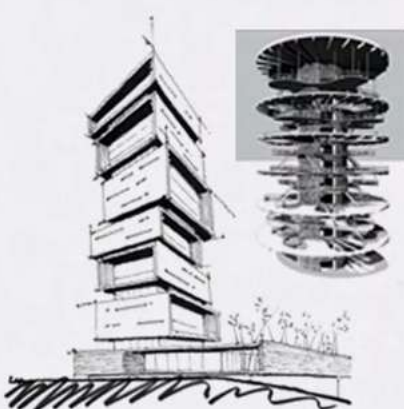
Theme - Prison-like, Monochrome Monotonous, Repetition, lack of free-thinking

Although it is important to update the curriculum, and some have tried to change it, it could be said that its modification has become so arduous that its stagnancy persists. And this is why curriculum could be seen as an isolated place stuck in time. Therefore, our animation's theme is observation of an odd and surreal world.



MOODBOARD:

Theme: Surrealism
Tone: Adventurous
Character: Balls as students



Industrialisation is an like an invasive species. It keeps growing, taking resources from the bottom to make the top fatter. Despite the instability and unfairness this causes in it's infrastructure, it relentlessly grows.

The look, tone and feel of the animation is familiar yet strange. The aim is to capture the essence of objects and structures that function, but are outdated, sub-optimal or even impossible.

An abstract moodboard was used as a reference point during brainstorming sessions to ensure that all ideas aligned with the desired tone and theme. Through these sessions, the concept of "Balls as students" was established. The surreal element was incorporated into the plot, allowing for an adventurous story to unfold within a fantastical world.

Transcript

Social justice as a concept - I've done my research on this - it goes back to the 19th century.

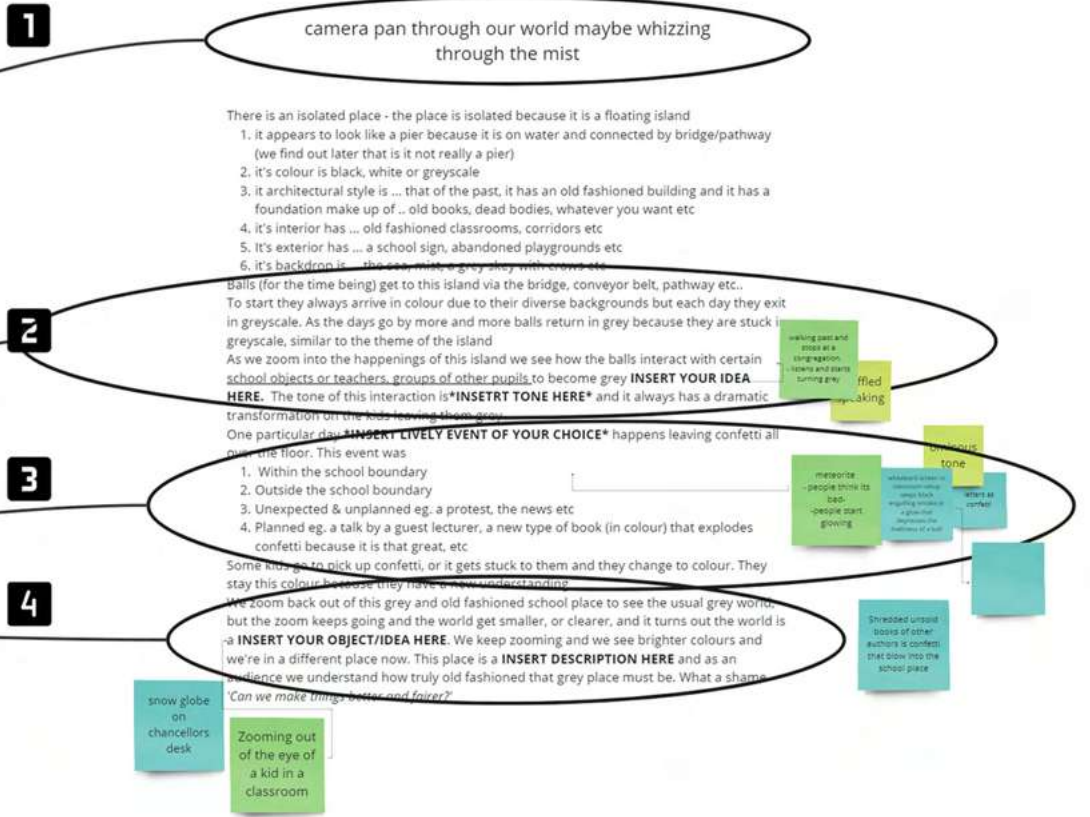
Because that's a time when in this part of the world, in the West, you had industrialization kicking off; you had countries forming empires, so suddenly there was a need for social inequality because that's how countries get on - you know, you exploit people, you take from places, you colonize, you have workers at different levels, so the concept of needing justice in society became really sharp in the West

So, your curriculum has to have a position that factors that in, because there is social injustice built into society.

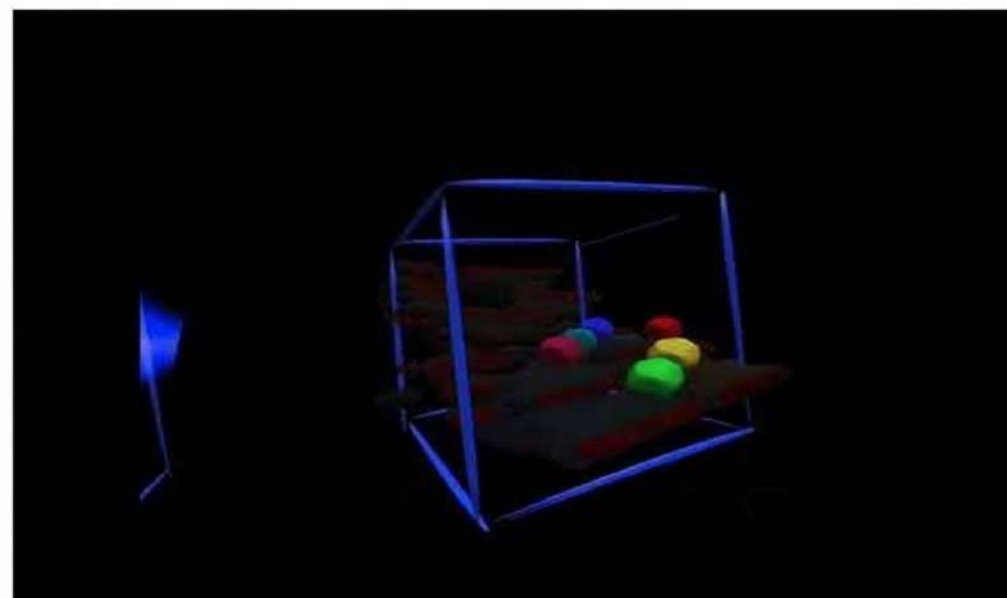
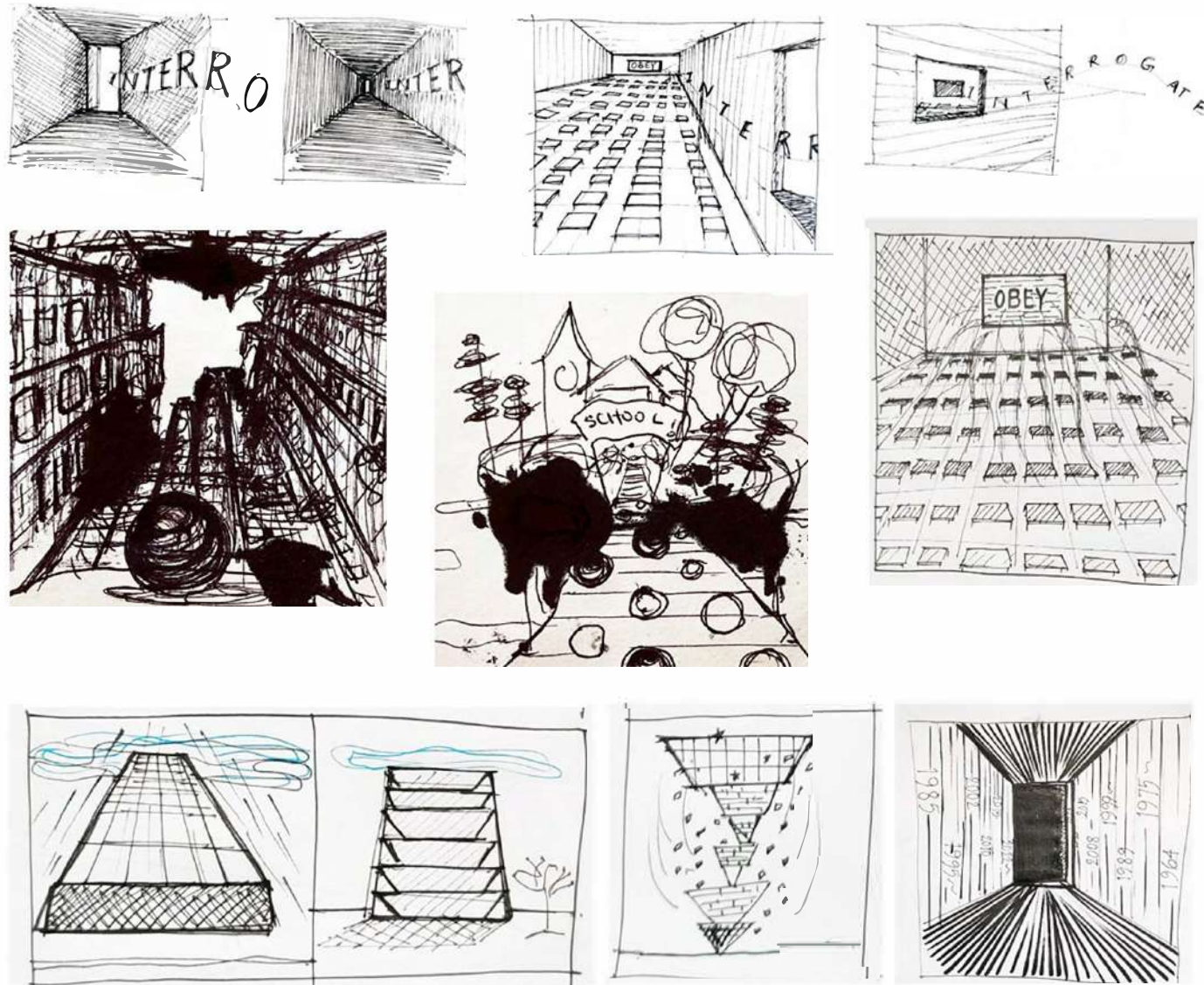
Individual people need to shape their own arguments, but I can tell you what I believe to be true about social justice. A lot of people can't because they haven't been invited to interrogate it. So, I feel as though the curriculum needs to be a place that fosters a spirit of interrogating the accepted truths and norms and the status quo, seeking to discover what actually happened, with a view to putting your best foot forward in a deliberate and benevolent direction of 'can we make things better and fairer?'

Endorsed by:
RSA natracare

We transcribed the audio file into a written script, identifying key themes and moments that we wanted to include in the plot. From there, we worked collaboratively to select scenes that would effectively communicate the story and convey the emotions we wanted to elicit from the audience. This involved brainstorming a range of possible scenes and selecting those that were most aligned with the overall narrative and character development.

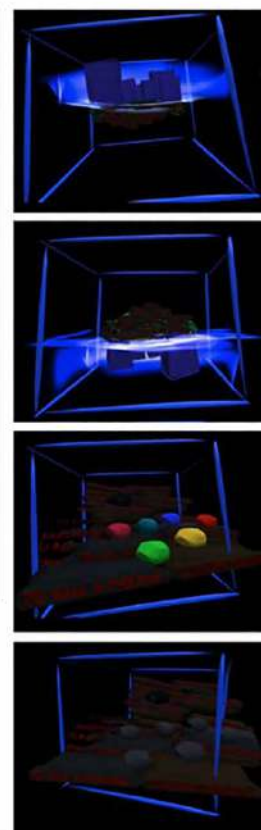


IDEA GENERATION - EXPERIMENTATION

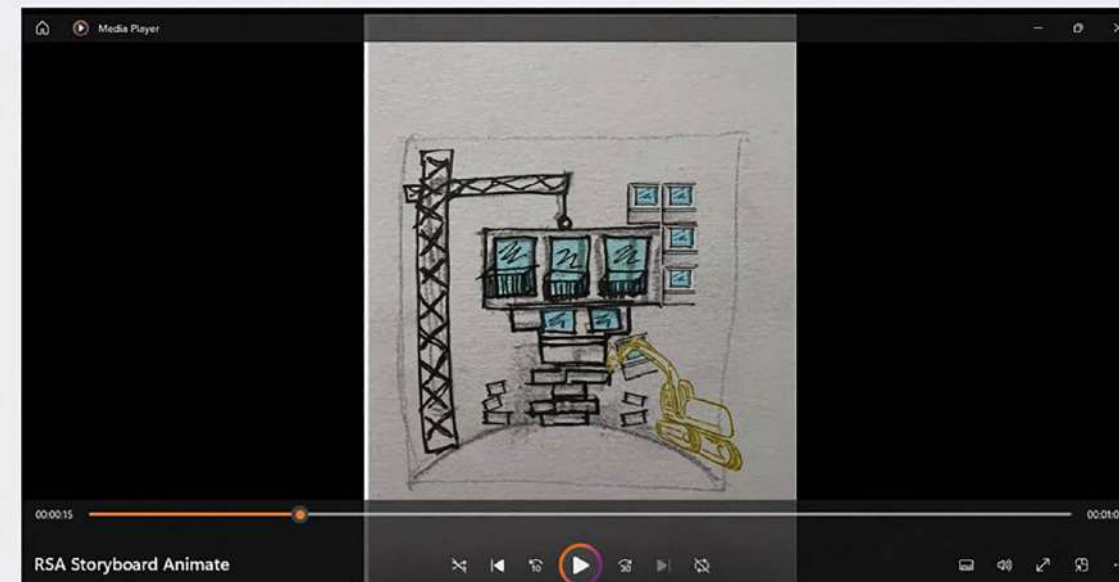


[youtube.com](https://www.youtube.com/watch?v=...)

VR story board try 1



An animatics was created on a Video Editor to match the scenes with the transcript before animating the scene on VR.



IDEA GENERATION - STORY BOARD

Voiceover: "Social justice as a concept - I've done my research on this - it goes back to the 19th century."

Visuals: Viewer sees the words on the TV "social justice as a concept"

Voiceover: "Because that's a time when in this part of the world, in the West, you had industrialization kicking off. You had countries forming empires, so suddenly there was a need for social inequality because that's how countries get on - you know, you exploit people, you take from places, you colonize, you have workers at different levels"

Visuals: Building fall from sky to for a tall tower showing industrialisation. Tower is unstable like jenga, bricks or coal, from the bottom to make the top fatter and bottom thinner.

Symbolism: transformation / industrialisation. Social inequalities

Voiceover: "So the concept of needing justice in society became really sharp in the West."

Visuals: Scene fades away and viewer stands in a dark space and see the words "concept of needing justice in society"

Voiceover: "So your curriculum has to have a position that factors that in, because there is social injustice built into society. Individual people need to shape their own arguments,

Visuals: Path of timeline forms in front of viewer leading to island which gets bigger. Walking on the path with coloured balls of different shapes and sizes. The path reveals text "Individual people need to shape their own arguments, but I can tell you what I believe to be true about social justice." as it moves.

Symbolism: balls of different colours, shapes and sizes representing social injustice.

Voiceover: " but I can tell you what I believe to be true about social justice. "A lot of people can't because they haven't been invited to interrogate it. "

Visuals: Enter school on the island. Black scene white door.. inside door shows classroom with black balls are covered in smoke . door shuts behind on remaining balls

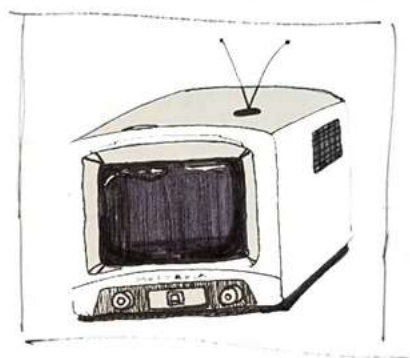
Symbolism: Black balls are covered in smoke from the monitor representing propaganda.

Voiceover: " So, I feel as though the curriculum needs to be a place that fosters a spirit of interrogating the accepted truths and norms and the status quo, seeking to discover what actually happened"

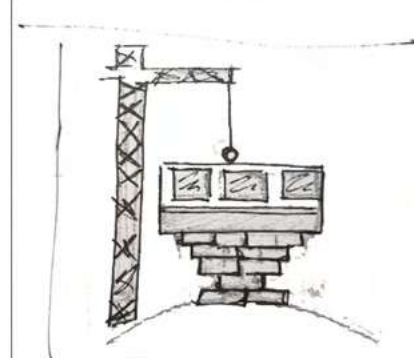
Visuals: An open book appears which says "interrogate the truth" then the letters fly around.

Voiceover: " with a view to putting your best foot forward in a deliberate and benevolent direction of 'can we make things better and fairer?'"

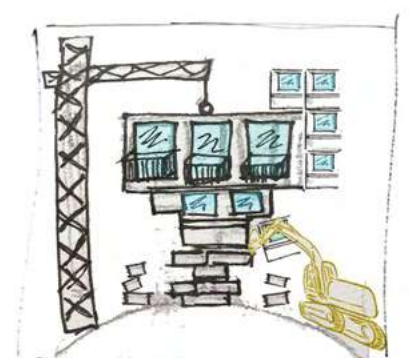
Visuals: Following the letters as they fly into classroom window causes the balls, then walls and eventually the whole island to appear in colour.



Viewer enters old TV - goes back in time. Viewer enters the concept of "Social Justice"



Building representing social hierarchy & injustice.



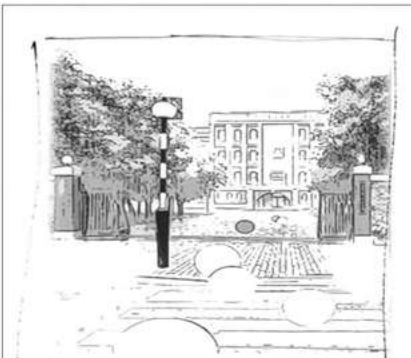
Bottom gets weaker & sparse as bricks are stolen to make higher levels bigger.



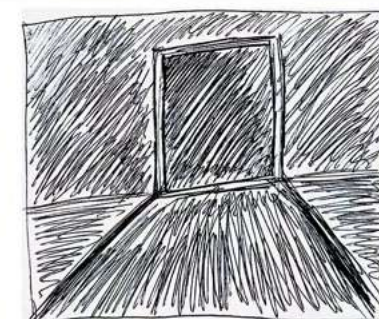
School represented as an isolated island- away from everyday life.



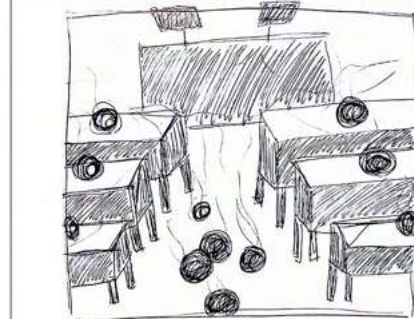
The path leads the viewer to the isolated school.



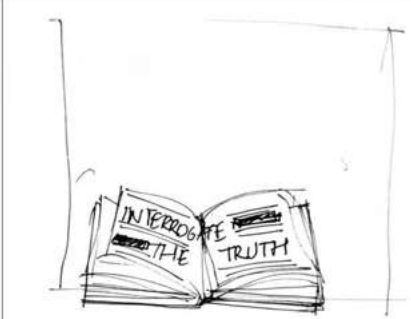
Colourful balls (students) are on their way to school.



As classroom is entered, balls turn to grey as they learn ideas of the past.. contrary to diverse and modern world life outside school.



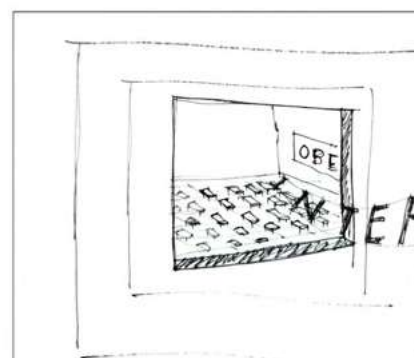
The door shuts on the viewer to portray not being invited in.



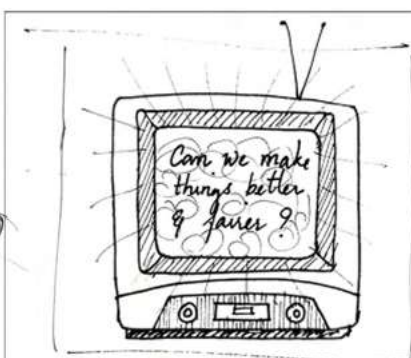
A radical book symbolising an eye-opener is seen with words "Interrogate the Truth" written on its pages.



The words lift off the page and magically drifts towards the classroom.

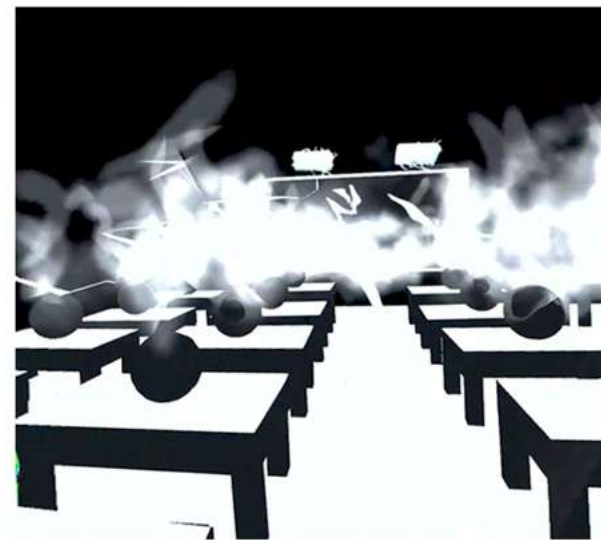


As the words enter the classroom, the grey classroom gains its colour back as students are opening their eyes.



Coming full circle. Exit TV from "Social Justice" to "Can we make things better and fairer?"

OUTCOME



Art Styles and Animation Techniques

Our project is inspired by the hand-drawn animation style. This style is inspired by *Dear Angelica*.

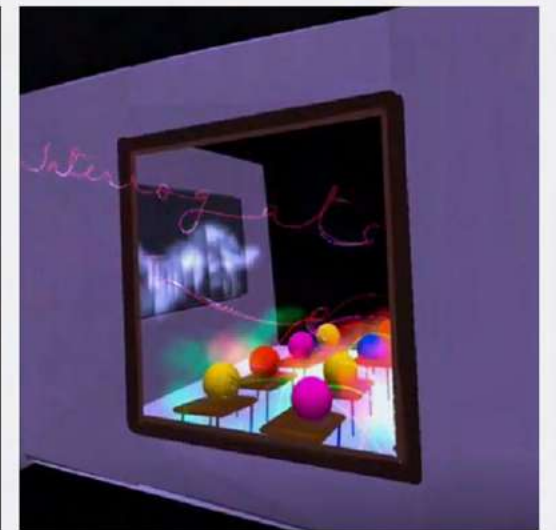
- invokes a raw and personal touch to the animation
- also allows for a flowing style

Brushwork

Soft, flowing lines are used in the last scene to create a quality of fantasy. It is shown through words being lifted off the page and into the classroom. More rigid style is used in scenes to show discrimination and suppression.

Colours

The brighter colours are used at the end of the project to bring a sense of hope to the audience.



Storytelling

Non-Linear Narrative is difficult for a fixed transcript. However, the use of a portal (TV) in the beginning and end scenes allows for a time-jump.

The scenes showing industrialisation acts as a scene setting through 'flashback'.

ACT 1 - The Departure

ACT 2 - Adventure

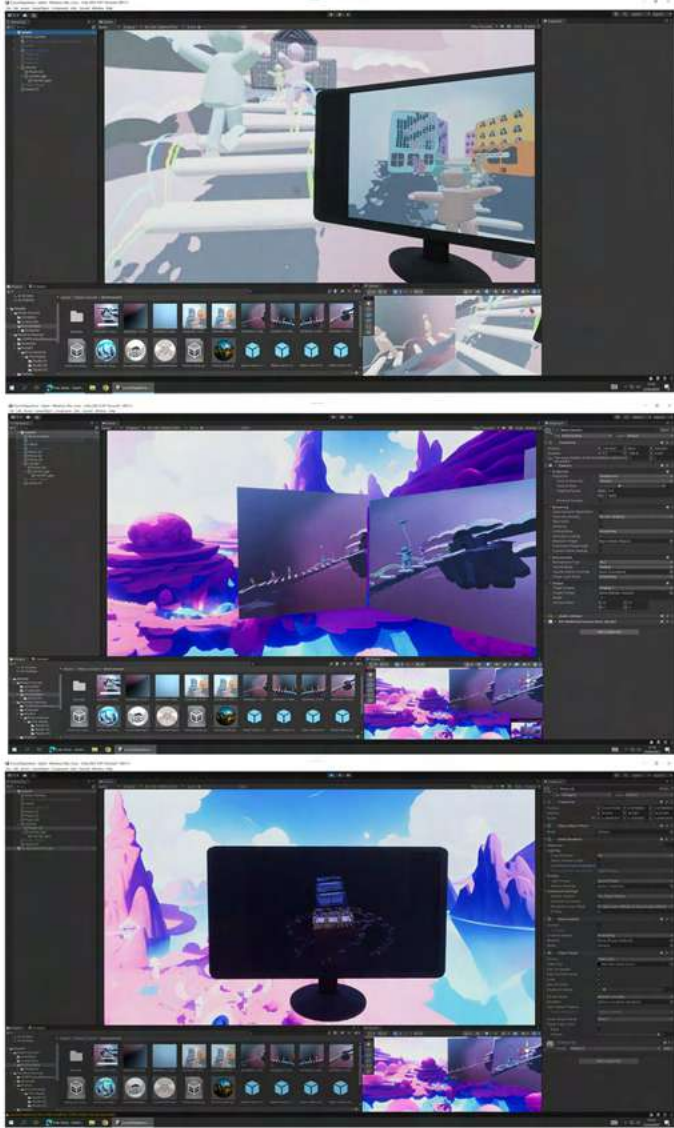
ACT 3 - The Return



https://leeds365-my.sharepoint.com/:v/q/personal/sd22mt_leeds_ac_uk/EQVKk6Pwy9IEvDg0zX753V8BwU1FOqTrqMkCFJ1sHeBDZg?e=84Xlxa

Using Ben Lambert's Framework for creating compelling

DEVELOPMENT - 360 SCENES



DEVELOPMENT ON UNITY

The making of the 360 Film Prototype
360 film helps audiences connect with impactful narratives and become more immersed in the story.
The final story was able to be created as a 360 experience to be viewed on YouTube and Facebook.

360 skybox generation (1)
360 images can be used to create a seamless skybox material as demonstrated by images on the right. However 2D images can cause issues when used in 3D. When the original file format is made up of 2D images with corners, these become visible in the material (left images) that becomes the global volume in 360.

360 skybox generation (2)

In 3D space, software was used to generate 3D video footage than can be used to create 360 films.

However issues arise post exporting to 360. When pixels are stretched the video resolution becomes low quality. To resolve these issues a 3D camera is needed to take photos or record videos of 3D objects, not 2D images. Therefore in order for a 360 version of this film to be made the entire scene could not be drawn in VR but rather, 3D modelled and recreated 360 Layouts

Two versions of our 360 film experience were made. In both, the video could be watched in 2D format however they each had different 360 surroundings.

A version of the 360 experience used the skybox made with 2d images. The benefits of this version is that the whole experience had the original VR drawn style.

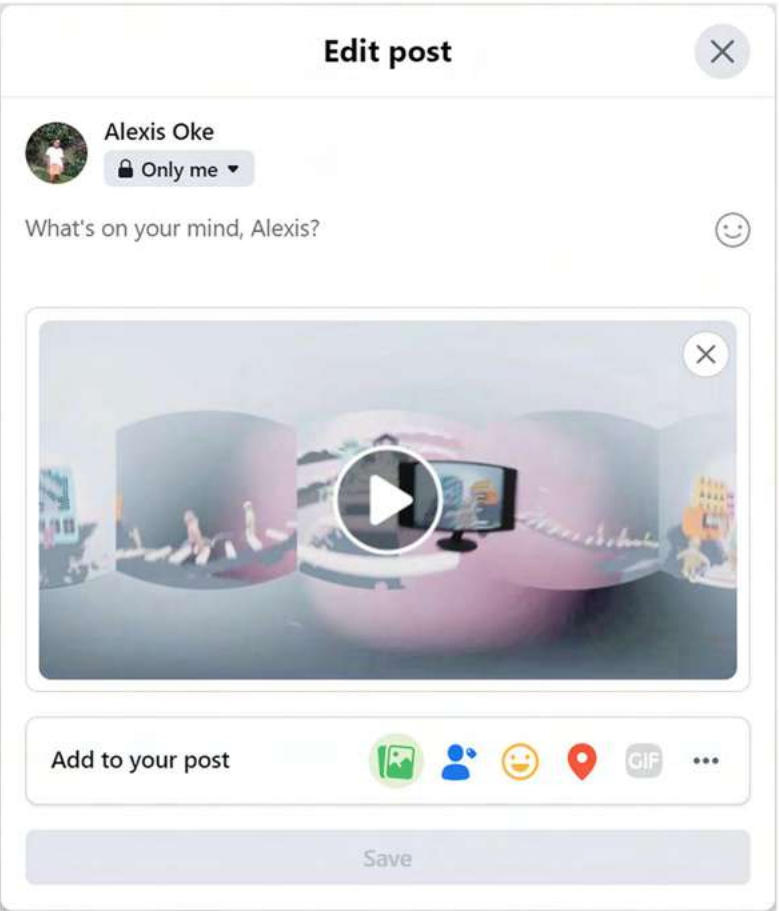
Another version of the experience used a skybox taken from a Skybox generation website that suited our style. This version contained hand-drawn content to be viewed as 2D slides. The team felt this was not as impactful.



3D IMAGE



PANORMAMA OF 2D PHOTOS



Future Work

3D Content Creation - Due to low resolutions and lack of raw 3D content the final 360 experience is not user friendly. OpenBrush as a free platform is not as highly serviced or software compatible when compared to its paid counterparts which the team uncovered as development was underway. Further work would produce the story as a 3D scene which produces higher quality 360 films.

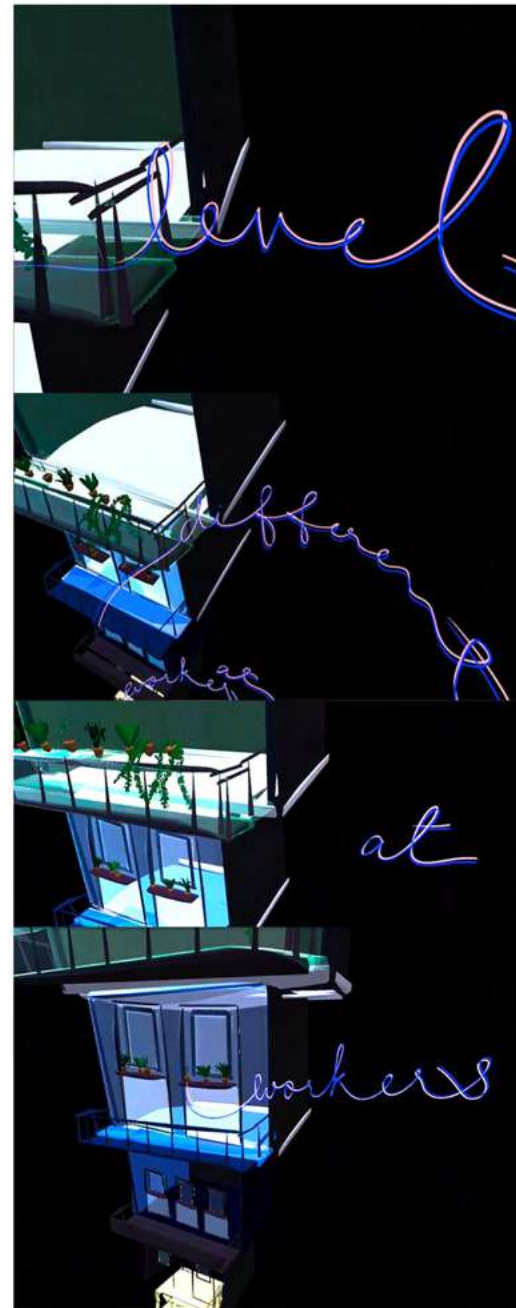
Participatory Design - Working with teachers could help improve the story's communication and ensure it is catered even more towards educators and leaders.

FEEDBACK AND IMPROVEMENTS

The **illustration style at the end is “whimsical”** “showing there is hope that things can change”. Beginning was sobering, **“makes it more impactful”**

“You know, in China we always add subtitle in the video so I will more focus on the words. I think this (referring to **scenes with text**) is pretty nice - Always catch my eyes”

“Audio was talking about a thing like truth or something and you **directly write them out**. I think it's a good way to help viewer understand”



The images on this board show the changes we made to our work after the user testing and receiving feedback. We added characters to replace the balls as people felt they could not relate to it and we added more writing in scenes to create a bigger impact.

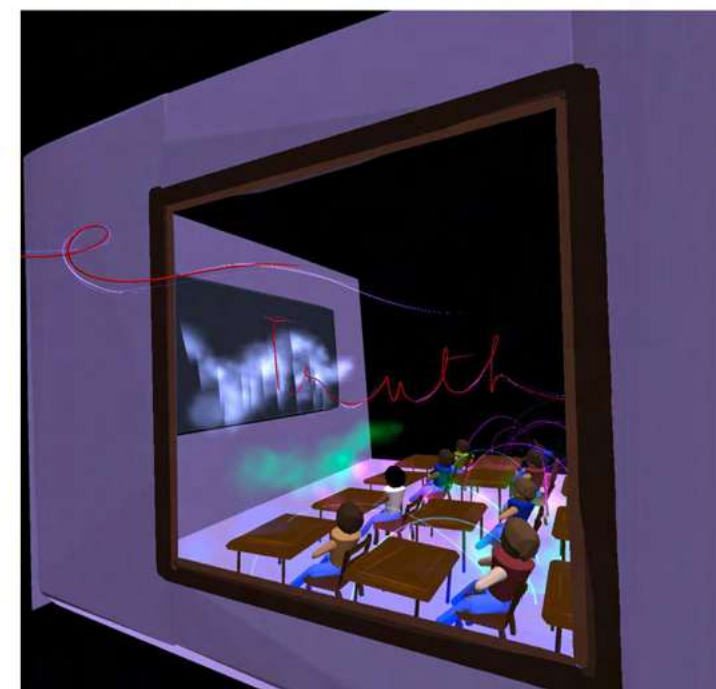
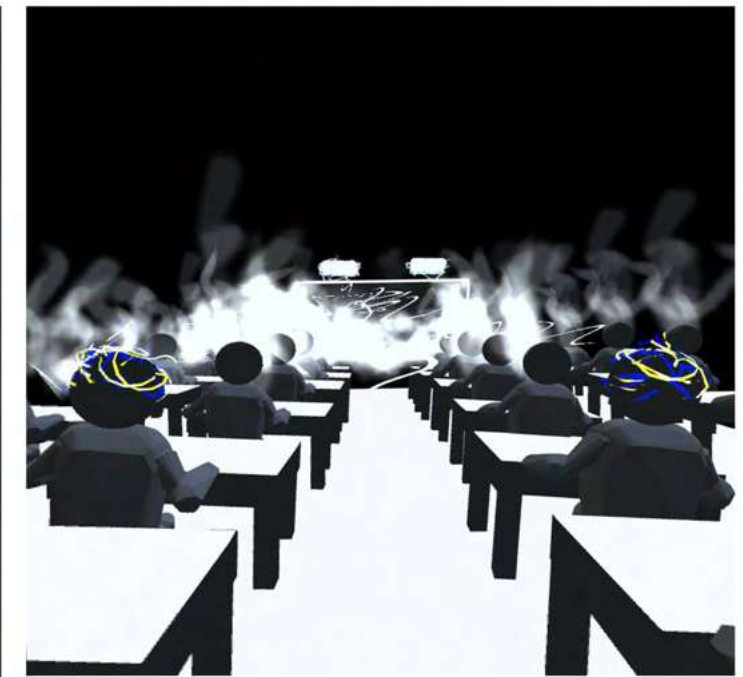


“Thought that balls signified people in lower and higher classes. **Could not understand they were students** until the end in the classroom”

“Make students look **more human-like**”

“**Could not relate to the characters**”

“Could understand the concept but did not find that it was **necessary to bring empathy to the characters**, they were more like props. Just showing how deep the problem is enough to convey the issue”



REFERENCES

Art Face. 2021. Cyber Cry. [Online]. [Accessed 27 April 2023]. Available from: <https://www.youtube.com/watch?v=vcOtjwUfzew>

Boakye, J. 2020. Jeffrey Boakye's website. [Online]. [Accessed 28 April 2023]. Available from: <https://www.jeffreyboakye.com/>

Boakye, J. 2022. *I Heard What You Said*. UK: Pan Macmillan.

Chen, R. (2016). How Oculus Story Studio created an immersive illustrated story. In: *Proceedings of the 8th ACM SIGGRAPH Conference on Motion in Games*, November 16-18, 2016, San Francisco, CA, USA. [Online]. ACM, pp. 1-6. [Accessed May 3, 2023]. Available from: <https://dl.acm.org/doi/10.1145/2996376.3016090>

Chevalier, E. 2017. *Dear Angelica Will Make You Believe in VR Storytelling*. [Online]. [Accessed 03 May 2023]. Available from: <https://vrscout.com/news/dear-angelica-will-make-you-believe-in-vr-storytelling/>

Dear Angelica. 2017. [Virtual reality film]. Saschka Unseld. dir. Mountain View, California: Oculus Story Studio.

DW News. 2014. A satellite image shows the extent of the re-education camp in Masanjia. [Online]. [Accessed 27 April 2023]. Available from: <https://www.dw.com/en/no-end-to-chinas-notorious-re-education-camps/a-17362570>

Goro Fujita. 2018. *Beyond the Fence*. [Online]. [Accessed 26 March 2023]. Available from: <https://www.youtube.com/watch?v=OcGE5lj3Y2s&t=311s>

GOV.UK. n.d. [Online]. [Accessed 28 April 2023]. Available from: <https://www.gov.uk/government/people/gillian-keegan>

Hansard HC Deb. vol.698 cols.218-9, 28 June 2021. [Online]. [Accessed 27 April 2023]. Available from: [://hansard.parliament.uk/commons/2021-06-28/debates/21062855000001/BlackHistoryAndCulturalDiversityInTheCurriculum](https://hansard.parliament.uk/commons/2021-06-28/debates/21062855000001/BlackHistoryAndCulturalDiversityInTheCurriculum)

Hood, R., 2020. *Artificial: A Study and Application of Immersive Storytelling using Virtual Reality*. Doctoral dissertation, University Honors College Middle Tennessee State University.

Ji, Y. 2020. An Overview of the Creation of Virtual Reality Animated Short Films. In: *Proceedings of the 2020 Conference on Social Science and Modern Science (SSMS2020)*, October 2020, Dalian, Liaoning, China. [Online]. Dalian Jiao Tong University: Dalian, Liaoning, China, pp. 1196-1200. [Accessed on 03 May 2023]. Available from: http://proceedings-online.com/proceedings_series/SH-SOCIALS/SSMS2020/icess01196.pdf

Johansson, M., 2019. VR For Your Ears: Dynamic 3D audio is key to the immersive experience by mathias Johansson- illustration by eddie guy. *IEEE spectrum*, 56(2), pp.24-29.

Lambert, B. 2023. *Creating Compelling Stories* [Webinar]. [Online]. RSA. [Accessed 26 April 2023]. Available from: <https://vimeo.com/rsadesignawards>

Meta. 2019. Quill Launches VR Animation and Storytelling Tools. 14 May 2019. Meta Blog. [Online]. [Accessed 3 May 2023]. Available from: <https://www.meta.com/en-gb/blog/quest/quill-launches-vr-animation-and-storytelling-tools/>

Oculus. 2017. *Dear Angelica: Breathing Life into VR Illustrations*. In: *ACM SIGGRAPH 2017 Talks*, 30 July 2017, Los Angeles, California, United States. [Online]. [Accessed 3 May 2023]. Available from: <https://dl.acm.org/doi/10.1145/3084363.3085073>

Park, A. 2023. *Briefing Session -Brief 9 -Moving Pictures* [Webinar]. [Online]. RSA. [Accessed 26 April 2023]. Available from: <https://vimeo.com/rsadesignawards>

Rafi Nizam. 2021. *From Concept to Animation: A 3D Pipeline in VR*. [Online]. [Accessed 27 April 2023]. Available from: <https://www.youtube.com/watch?v=qv7Gxe1B6fM>

Roettgers, J. 2017. Inside 'Dear Angelica': How Oculus Reinvented VR Animation, With a Little Help From Geena Davis. [Online]. Jan 20, 2017. *Variety*. [Date accessed]. Available from: <https://variety.com/2017/digital/news/dear-angelica-oculus-vr-animation-geena-davis-1201965613/>

Road to VR. 2021. *12 Tools for Painting, Sculpting, & Animating in VR*. [Online]. [Accessed 28 April 2023]. Available from: <https://www.roadtovr.com/>

RSA. 2022. *Dismantling racism in British education | Jeffrey Boakye | RSA REPLAY*. [Online]. [Accessed 28 April 2023]. Available from: <https://www.youtube.com/watch?v=CMeXltaulIg>

Studio Kawakeb. 2023. *Power of Storytelling* [Webinar]. [Online]. RSA. [Accessed 26 April 2023]. Available from: <https://vimeo.com/rsadesignawards>

Syrett, H., Calvi, L. and van Gisbergen, M. 2017. *The Oculus Rift Film Experience: A Case Study on Understanding Films in a Head Mounted Display*. In: Calvi, L. and van Gisbergen, M. (eds.) *Intelligent Technologies for Interactive Entertainment: 8th International Conference, INTETAIN 2016, Utrecht, The Netherlands, June 28-30, 2016, Revised Selected Papers*. [Online]. Springer International Publishing: Switzerland, pp. 197-208. [Date accessed: May 3, 2023]. Available from: https://link.springer.com/chapter/10.1007/978-3-319-49616-0_19
The Education Foundation. 2011. *Education Britain Conversations*. [Online]. [Accessed 28 April 2023]. Available from: <https://www.ednfoundation.org/>

Thomas, R., Unseld, S., & Planck, M. (2017). *Dear Angelica*. In *Proceedings of the ACM SIGGRAPH/Eurographics Symposium on Computer Animation* (p. 6). Association for Computing Machinery. Available from: <https://dl.acm.org/doi/10.1145/3078280.3102786>

Tracy, S. J. 2013. *Transcript Analysis: A Step-by-Step Guide*. In: Artiga, A. F. J. Fernandez, M. & McLeod, C. A. (Eds.), *Handbook of Communication Disorders*. Springer US. pp.433-453.

Zeyu Ren. 2019. *Wired*. [Online]. [Accessed 27 March 2023]. Available from: https://www.youtube.com/watch?v=anL1s_IYGdk

