
EVENT QUEUES

Created by **NEXUS**

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DESK RESEARCH: CONTEXT

80%^[11]

Of queuers at events report that long queues are one of the “most significant drawbacks” of attending events.

- 27% of queuers get annoyed by other queuers.^[12]
- On average, people are willing to wait for 36 minutes to enter events.^[13]
- Poor queue management can reduce satisfaction by 30%.^[11]
- Brits spend 6.7 years waiting, approximately 11% of their life.^[14]
- 97% of queuers do not feel excited to queue.^[1]
- 72% of queuers believe queuing is a “waste of time”.^[15]

FOCUS: EVENT QUEUES

We started with digital experiences but realized they lacked social interaction because everyone assumed others were too busy to engage. This led us to focus on an environment where people naturally have downtime: queues.

Queues are a unique social setting where people are physically together but remain disconnected, making them an ideal space to encourage social engagement.

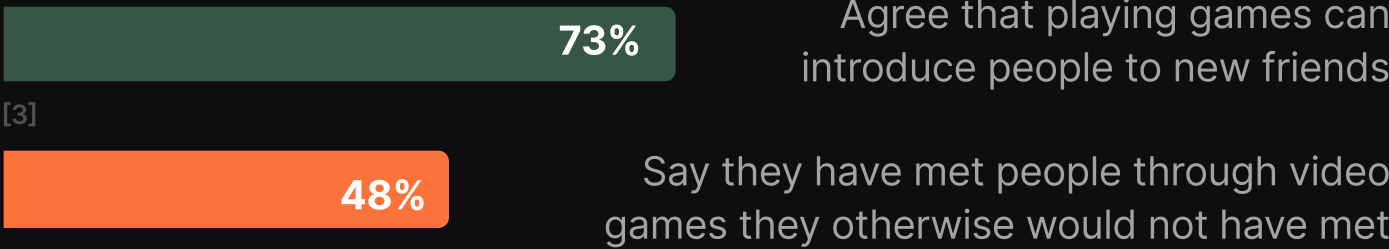


[16]

STRATEGY: GAMES



Gaming makes social interactions easier by providing a shared activity that reduces the pressure of direct conversation, allowing people to connect naturally. It offers a common goal or challenge that encourages teamwork, collaboration, and organic conversations.



Additionally, gaming is inherently fun, making social experiences more enjoyable and helping people relax and be themselves.

WHO

Queuers for events such as; Concerts, Sport Events, Conventions, Theme Parks. Likely 18-35

WHAT

Creating opportunities for queuers to play and interact with other people.

WHEN

During peak venue hours, typically later in the evening and at night, when social energy is high.

WHERE

In queues designed to accommodate large capacities in Britain, particularly London.

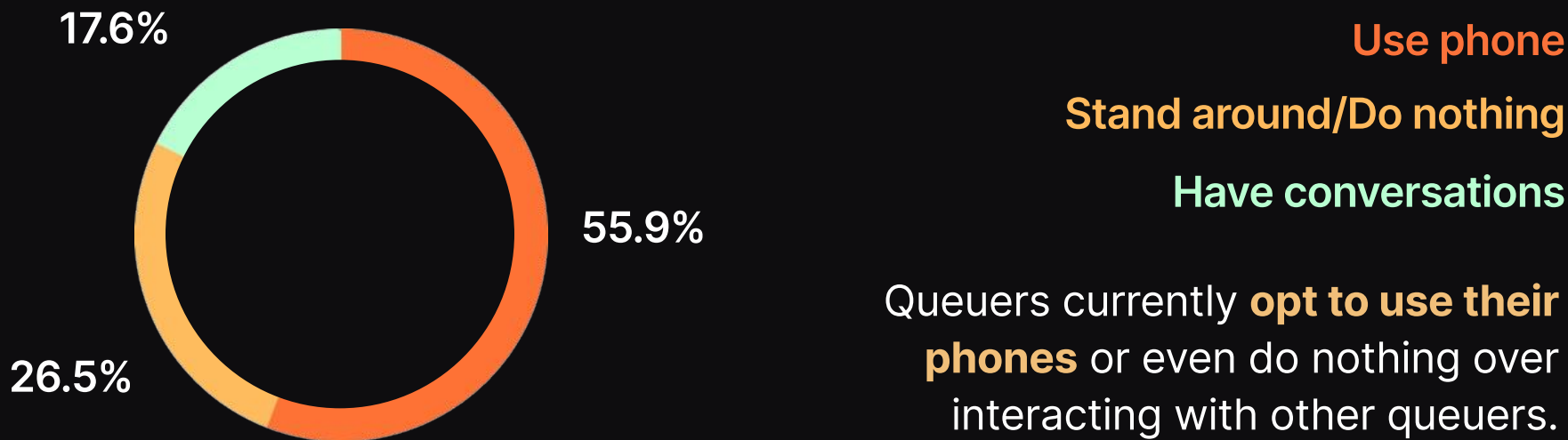
WHY

They are a social setting, where people have similar interests, resulting in an ideal space for socialising.

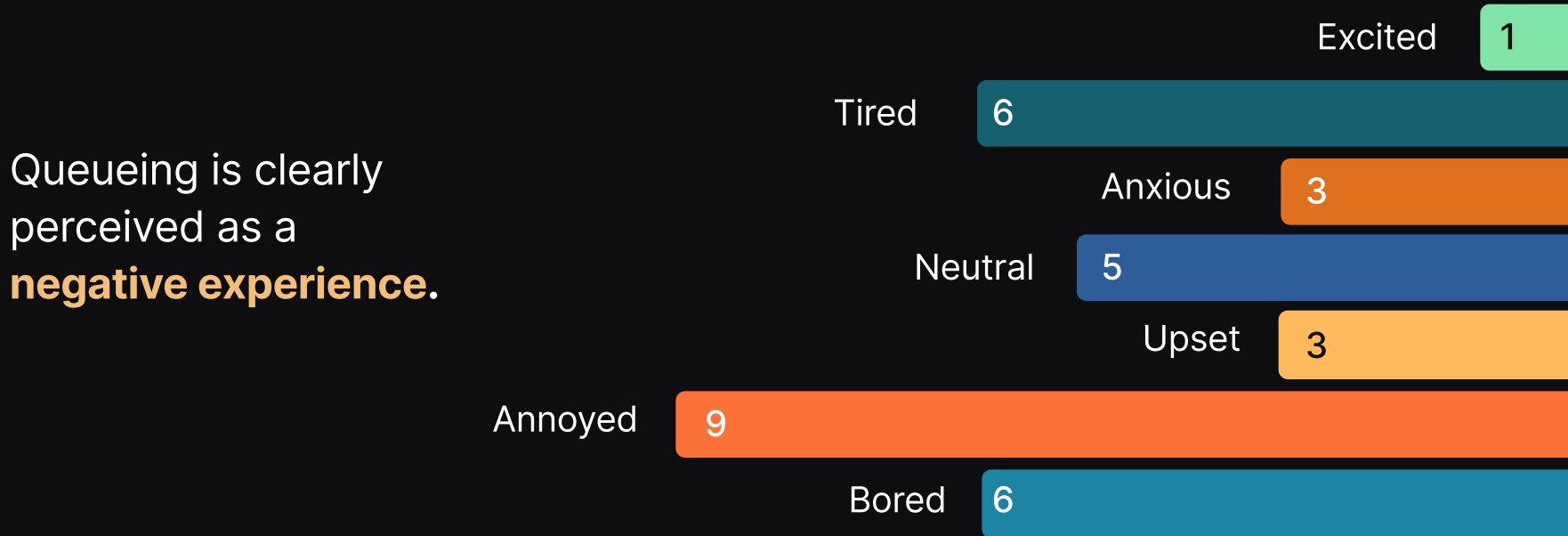
THE PROBLEM: QUEUES LACK SOCIAL ENGAGEMENT

Queues are a cornerstone of British culture: efficient, orderly, and often silent. In London, a fast-paced cosmopolitan city, we've designed systems to reduce waiting times. But what if we reimagine waiting, not as wasted time, but as an opportunity for social engagement?

Survey: What do you do while queueing?^[1]



Survey: How do you feel while queueing?^[1]



MAIN ASSUMPTIONS

- Queuers find queues boring, but find it a necessary evil.
- People are hesitant to interact with each other in unfamiliar contexts - why risk having a negative interaction with a stranger.
- People in public want to engage with others but often struggle with how to start a conversation.

RESEARCH: OVERVIEW

OBSERVATIONS

We observed people in **existing urban spaces** to understand their behaviour in interactive environments. **Our focus was on attention spans and engagement levels.** By analysing how individuals interacted with their surroundings and with each other, we gained insights into patterns of social behaviour.

STREET INTERVIEWS

To explore how people interact with strangers in public, we conducted structured interviews with **21 individuals.** These interviews provided qualitative insights into social behaviours, personal comfort levels, and attitudes toward interactions with strangers. The responses helped us understand barriers, social norms, and motivations for engaging with others.

VISUAL VS. TEXT

We designed an experiment to test **how people interpret instructions** by presenting students with two versions of the same task; one using step-by-step images and the other using written instructions. By analysing their preferences and reasoning, we gathered data on effective communication methods.

VOLUNTARY SOCIALISING

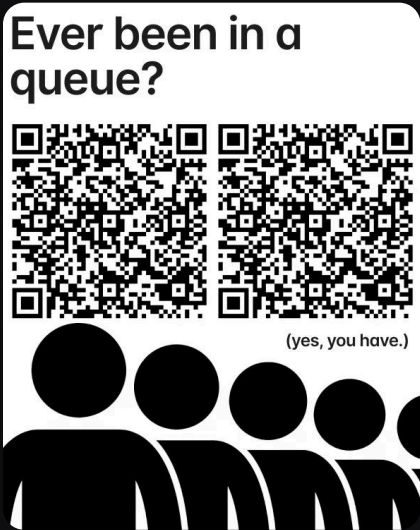
We conducted a public experiment to examine what encourages people to engage with others. A table was set up with **two different forms of voluntary interaction**, one focused on conversation and the other, a high five. This experiment was repeated, however **the interaction was changed to gaming.** Observing engagement, emotion, and behaviour before, during, and after the activity helped us refine our understanding of social cues and engagement strategies.

IN-DEPTH INTERVIEWS

To further investigate public social behaviour, we conducted interviews with university students, focusing on their experiences in **social settings and event queues.** Participants ranged in extroversion levels, allowing us to examine different perspectives. These structured yet conversational interviews reinforced findings and **defined locations.**

QUEUE SURVEY

To gather additional data on queuing experiences, we designed a survey that collected **24 responses.** The open-ended questions uncovered personal preferences, frustrations, and expectations related to queuing. This survey provided **quantitative and qualitative insights** that tied together themes from our previous research, identifying key factors that influence engagement in queues.



RESEARCH: EXISTING SPACES

OUTERNET

A large-scale, immersive, digital experience that attracts huge crowds

Located next to a busy tube station and shopping district, Outernet's audience are mostly passers-by. It has immersive advanced LED screens, and features digital art installations, and a giant Tetris game designed for public interaction.

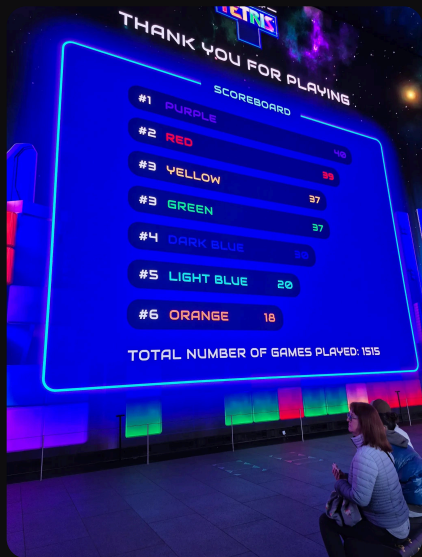
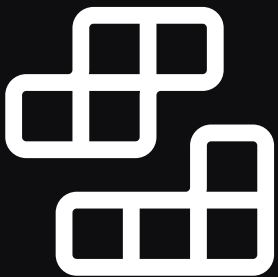


Labelled: 'London's most visited attraction' [2]

OBSERVATIONS

While people were certainly **attracted to the novelty of the experience**, they didn't interact much with Outernet or the other people.

- **47% of visitors were on their phones** when they entered, mostly to take pictures or videos. Many continued to stay on their phones, becoming less engaged and appearing less approachable.
- The average time visitors spent at Outernet was **41 seconds**. Groups tended to stay longer but isolated themselves from others.
- Most visitors were coming from **Tottenham Court Road station**, briefly experiencing the space before continuing on their way.
- Only 7 people could play the Tetris game at a time while over 50 people were present, further hindering engagement.
- The game felt **neither collaborative nor competitive**, meaning players showed little interest in each other.



Further data on Notion/Observation Research/Day 2 Outernet

STREET INTERVIEWS

We made observations and **interviewed 21 members of the public** about how they interact with strangers.

52% were comfortable with starting a conversation in a place like Outernet. However...
0% of visitors approached anyone new during our stay.

The majority of people appeared visibly happier after the interview. It is clear that many people want to interact, but hesitate due to the **lack of appropriate context**.



"We live in an individualistic society...
...people might think you're a weirdo"



People believed that everyone was busy and they would see themselves as an annoyance.

Further data on Notion/Interviews, Surveys & Experiments/ Street Interview

DIRECTION

We have realised **how ineffective Outernet was at fostering social connections**. This allowed us to understand some of the major issues and barriers that prevent positive interactions from occurring. This pointed us in the direction of future research and set basic rules to define a location. **It needs to be defined as a social space.**

WE ASKED: What stops you from talking to others?

- **Fear** of "encroaching on their personal space"
- **Pressure** from "social norms"
- **Anxiety** from thinking "I might not be interesting enough"
- **Awkwardness** as "everyone is on their phones"
- **Assumption** that others "might be busy"



"much more comfortable in a bar setting"

Many visitors shared this opinion, which reinforces the idea that social norms play a significant role. It suggests that for people to feel comfortable interacting with each other, a space must be **perceived as inherently "social."** Venues like clubs, bars, concerts, and events all share this characteristic.

INSIGHTS

- Some settings are explicitly recognized as social spaces, creating an expectation for interaction. Without this context, individuals feel like they are intruding on people.
- There are perceived barriers to conversation: fear of annoyance, lack of common ground and concerns about safety. Phones and group settings also discourage interaction.
- There is an underlying desire to connect but almost everyone struggles to initiate.

RESEARCH: TESTING IMPLEMENTATIONS

EXPERIMENT: VOLUNTARY SOCIALISING WITH STRANGERS

Over two days outside Imperial's library, we tested people's willingness to engage in voluntary social interactions. We defined interaction as a conversation. To ensure voluntary participation, we let the public approach us rather than initiating contact. We received 55 participants in each.

PART 1: High Five vs. Conversations

People were prompted to either high five a team member or choose a conversation topic out of a hat. If they chose the latter, they were asked to talk for one minute, but most of them happily talked for longer without being asked.



PART 2: High Five vs. Playing 2-Player Games

People were prompted to either high five a team member or play a two-player game with another team member. Gaming broke the ice and allowed for easy conversations despite it not being the focus.



OBSERVATIONS

- In the gaming experiment, interactions doubled, indicating more engagement when a game was involved.
- Males much preferred "shoulder-to-shoulder" interaction, as it felt lower pressure and less confrontational.
- When people were already interacting with us, passers-by in the conversation experiment walked away, unwilling to wait. Whereas, the gaming experiment drew spectators who stayed to watch.
- The game experiment sparked more smiles and laughter, even with spectators, and overall left people happier than the other experiment.



INSIGHTS

- People avoid interrupting conversations but gather around gameplay, as it creates a shared focal point, fostering connection. Once an interaction has begun, more people are suddenly willing to join.
- Gamified interactions turn passive observers into active participants, while casual small talk lacks the same draw. Structured play feels lower risk, lower effort and higher reward than open-ended conversation.
- Strangers usually keep to themselves, but simple, friendly competition quickly builds a sense of togetherness, even among complete newcomers.

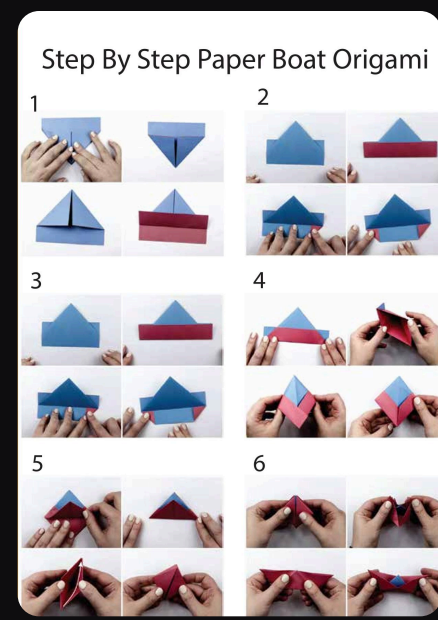
DIRECTION

This helped us finalise on including a gamified experience to our designs and started the converging process by adding a limiting factor of people being discouraged when there were already people playing. This meant there had to be a constant flow of people. Ultimately, it all came down to one thing - queues.

SURVEY 1: VISUAL VS. TEXT

34 University students were asked whether they preferred pictures or text to make an origami boat and why.

People prefer a mix of images and text but favour more images, as they reduce cognitive effort. Text-heavy instructions can be a barrier, especially for neurodivergent individuals or those with reading difficulties. Visuals improve accessibility.



Further data on Notion and Page 13

SURVEY 2: QUEUING

A survey was conducted to explore people's experiences and perceptions of queueing in various situations, such as concerts, grocery stores, sports events, and theme parks. This was to understand how individuals feel about waiting in line, their willingness to engage with others, and what factors might improve their queueing experience.

We gathered 24 responses

What might improve the experience of long queues?



"Activities scattered along it."
"Interesting people to talk to."
"A reward or compensation"
"Disney-land: Queue for alien encounter was part of the ride."

Further data on Notion/Interviews, Surveys & Experiments

INSIGHTS

- Queues are seen as frustrating and negative experiences. Most people associate waiting in line with boredom and irritation rather than an opportunity for engagement.
- Most queuers would choose to participate in activities and entertainment over using their phone, given the opportunity. Those who have done it before noted it as 'memorable'.

DIRECTION

The survey confirmed our belief that entertainment is the most effective way to make queueing enjoyable and demonstrated strong interest in the idea. This validation strengthened our commitment to the idea, giving us greater confidence in our approach.

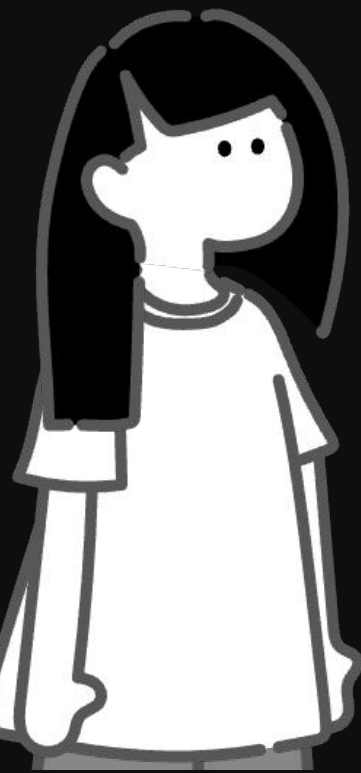
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RESEARCH: IN-DEPTH INTERVIEWS

INTERVIEW 1

Angelina, an enthusiastic concert goer.

Angelina stood out because of her **experience with concerts and fan events**. When we spoke, she'd just been to a concert alone, so we were keen to hear what it was like navigating event queues without a group. The interview explored her **social behaviours**, preferences in public spaces, and how factors like environment, age, and shared interests influence her interactions.



- What age range would you be comfortable talking to?

"I think I will be fine with anybody similar to my age, or if I have to give a range about 16-25."
- When you're out and about by yourself, what do you tend to be doing?

"I normally like having headphones on, I don't have music on I just have it for the noise cancelling aspect."

INSIGHTS

- Age proximity can influence social comfort. People feel more at ease interacting with those close to their own age, while larger age gaps create hesitation.
- The constant flow of people and fleeting connections make individuals feel like strangers, which fosters a sense of alertness. Leading some to seek personal space.

DIRECTION

We focused on solutions that reduce anonymity, reinforcing the queue demographic. The shared challenge creates a collective experience, **making people feel less like strangers**.

INTERVIEW 2

Safiyya and Phoebe, second year university students.

Safiyya is outgoing and open to **interacting** with others, Phoebe is more introverted and prefers to keep to herself. The interview provided insight into the perspective of the average young adult, exploring how they spend time while waiting, their **willingness to talk to strangers**, and what influences their decision to start a conversation.



- What would make you speak to more people and stay in contact?

"I would only speak to someone if they matched my energy and vibe."
"Unless if I have a really similar interest, I wouldn't start a conversation."
- What do you do in concert queues?

"I normally just go on insta and scroll, or, If I am with someone I would talk to them."
"I just read my book - I wouldn't interact with anyone"



INSIGHTS

- Shared interests make conversations easier by creating an immediate sense of connection, reducing social barriers. People are more likely to engage and open up when they have common ground.
- People engage when they sense compatibility through personality, body language, or shared enthusiasm. Tools that highlight matching energy and connection can make interactions easier.

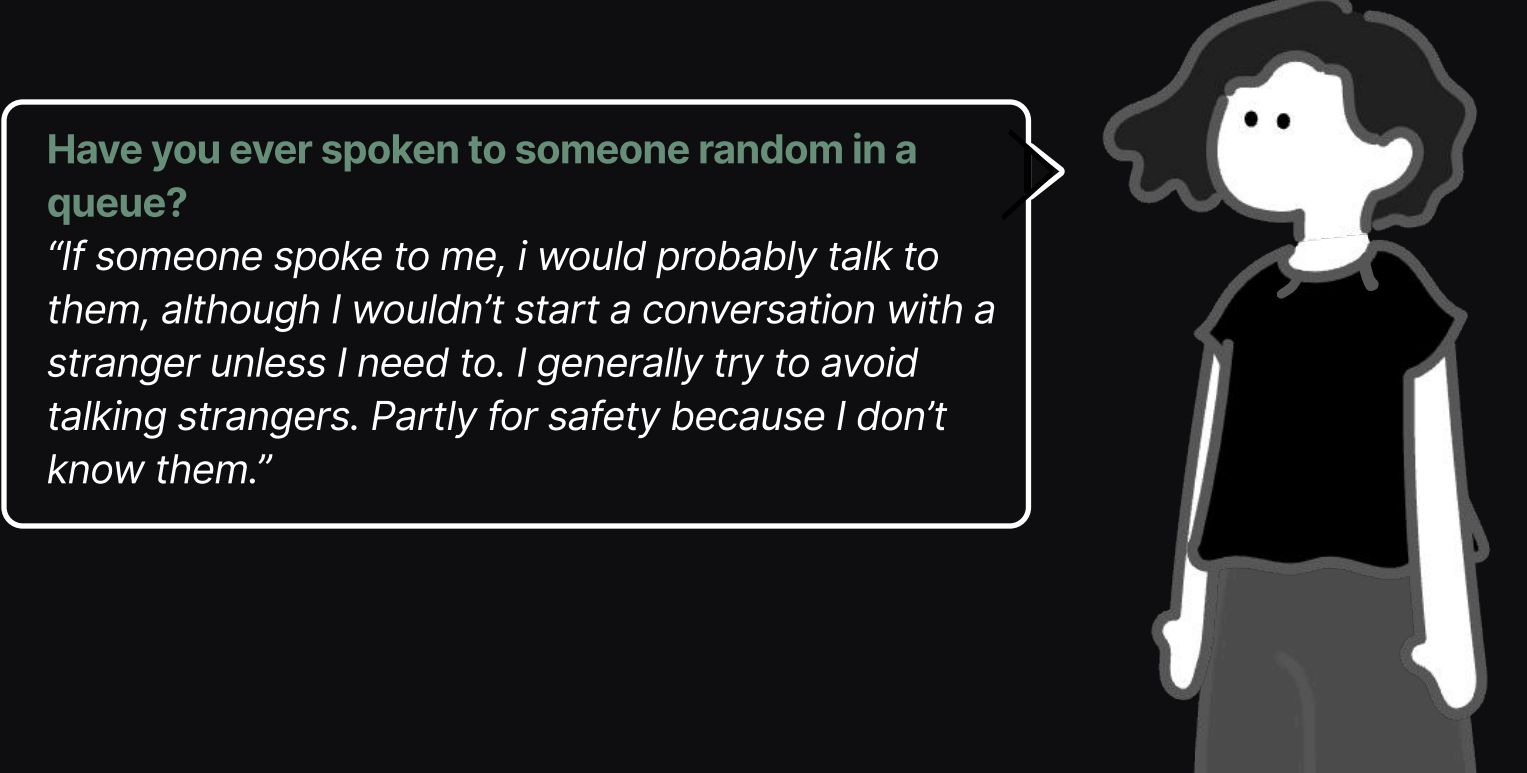
DIRECTION

This helped us better understand user needs, such as increased interactions when there's a shared interest, which aided in converging around events. We also recognized the potential of using games to match people's energy, fostering more natural and engaging interactions.

INTERVIEW 3

Sara, a reserved second year university student

She is **mostly opposed to interacting** with strangers and is content with this, though she notes that interactive public activities at events "could be cool." The interview explored Sara's social habits, preferences for activities with friends, comfort with waiting and interacting with strangers, and their approach to meeting new people.



- Have you ever spoken to someone random in a queue?

"If someone spoke to me, i would probably talk to them, although I wouldn't start a conversation with a stranger unless I need to. I generally try to avoid talking strangers. Partly for safety because I don't know them."

INSIGHTS

- People typically avoid talking to strangers unless there's a clear reason, driven by safety concerns and the uncertainty of others' intentions, especially in unfamiliar settings.
- Time constraints in shorter queues make it hard to form connections. Solutions should target people in longer queues.

DIRECTION

We focused on encouraging social interaction **by providing clear, safe reasons for engagement**, especially in unfamiliar settings, with a focus on longer queues where people have more time to connect.

PERSONAS & JOURNEY MAPPING

Anita Wait: Eager Sports Fan

Anita is impatient and dislikes waiting, eager to get through quickly and enjoy the football match with her family.



Wants:

- Distraction to make the queue feel faster.
- Feel progress near the entrance.

Pain Points:

- Frustrated by slow movement up front
- Stuck with nothing to do

Ben Wishaw: Reserved Musician

Passionate about indie music and reading, attending solo on a second-hand ticket, finds the queue distracting and uncomfortable.



Wants:

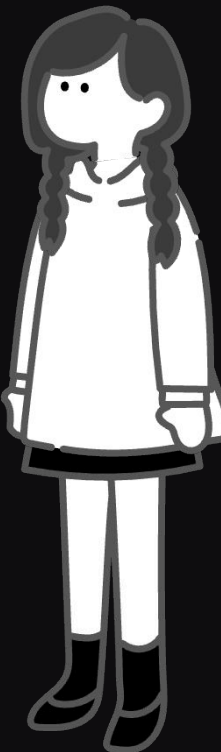
- Get inside quickly
- Stay engaged while waiting
- A less crowded, cooler space

Pain Points:

- Too uncomfortable to read
- Hates waiting in line
- Feels isolated alone

Brianna Quinn: Vibrant Club-Goer

Likes to go clubbing with her friends and meeting new people.

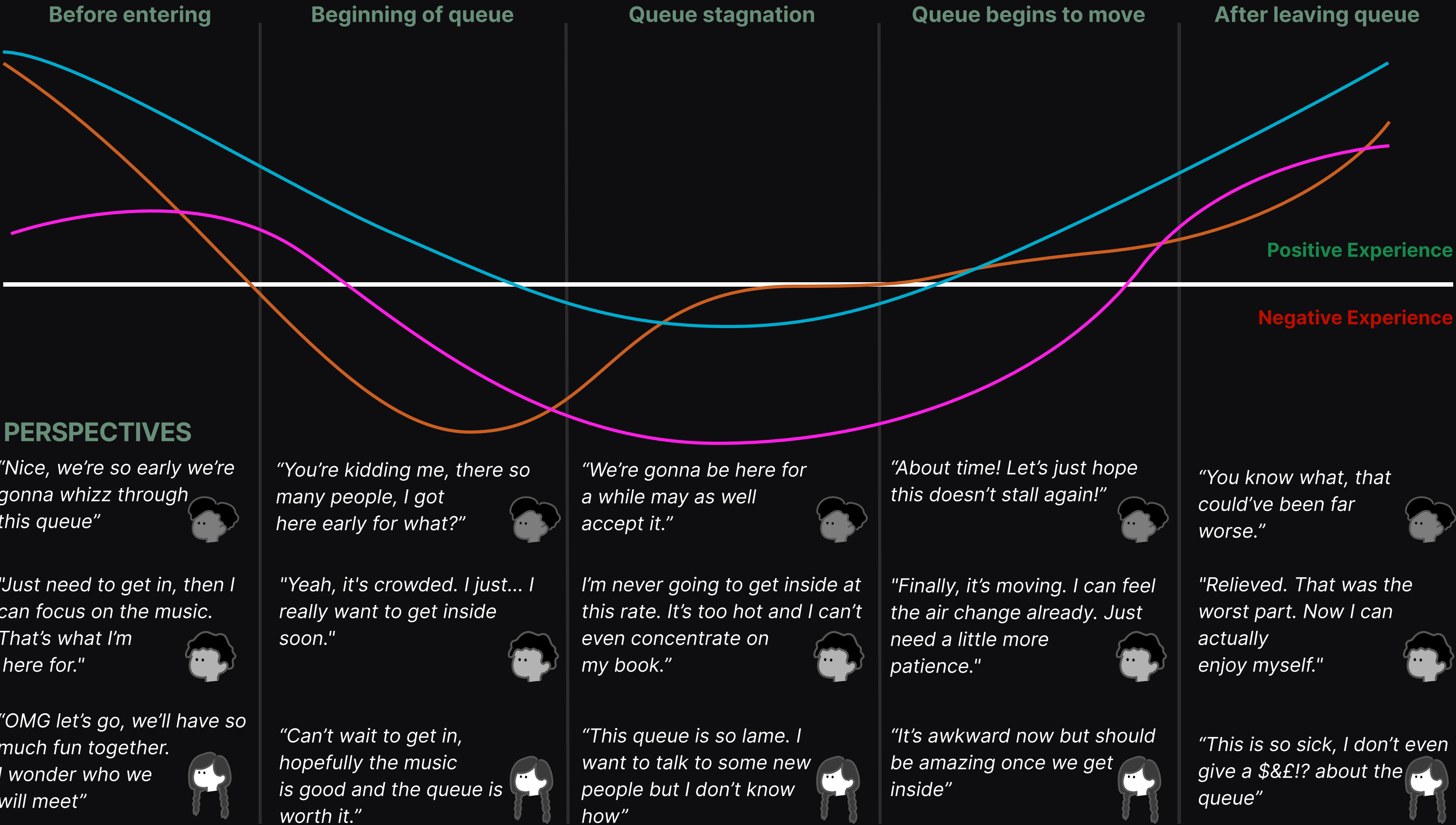


Wants:

- Natural opportunities to initiate conversation
- To make memories with friends

Pain Points:

- Experiences disappointment when social interactions during queuing feel limited or forced



OPPORTUNITIES

How might we initiate meaningful interactions between queuers?

How might we alleviate the boredom caused by being made to stand for a long time?



DIRECTION

This showed most people's experiences drops at the beginning of the queue, refining the location of the design. It also highlighted how extroverts engage easily while introverts need low-pressure prompts.

RESEARCH: CONCLUSIONS

INSIGHTS



INTERVIEWS

Most people rarely talk to strangers due to discomfort, social norms, or fear of intruding.

- There is a shared social belief in our individualistic society that everyone is busy and preoccupied, and do not want to be disturbed. ●

People are hesitant to engage with strangers due to concerns about personal safety. However, when they share a common interest—such as an event—they experience a connection that lowers social barriers.

- This shared context fosters familiarity and trust, making interactions feel more natural and organic, reducing the discomfort of engaging with others. ●

EXPERIMENTS

In social gatherings it takes just one person/group to break the surface tension.

- Once a space has been deemed ‘social’, people are happy to join in. This herd mentality results in more people talking. ●

People hesitate to interrupt conversations but eagerly gather around gameplay due to the shared focal point that games creates, reducing the pressure of direct engagement but still fostering connection.

- Contrary to typical assumptions, spectatorship increases approachability rather than creating a barrier. ●

Gamified interactions are more effective for socialising.

- In contrast, conventional conversation starters lack the same compelling draw.
- This indicates that structured play creates a psychological invitation perceived as lower risk and higher benefit compared to open-ended conversation. ● ●

OBSERVATIONS

Phones act as social shields in queues.

- When people are on their phones they are already engaged with familiar activity, making them less receptive to new connections.
- While technology keeps them socially engaged, it isolated them from their immediate surroundings. ●

GOAL

Create an atmosphere that encourages social interactions that leave people happier.

PRIMARY HMW

How might we design a **gamified experience** that **naturally encourages social interactions** in queues while maintaining flow and engagement?

SECONDARY HMWs

How might we create an interactive experience that adapts to the pace of a moving queue without causing delays or disruptions?

How might we make the process of joining conversations feel more inviting and less intimidating for others so that individuals take the first step in overcoming social tension.

How might we design engaging, low-pressure activities that allow both active participants and spectators to feel included in the experience?

HMW's CREATION

- Transformed research findings into key insights.
- Defined an overarching goal for the project based on these insights.
- Created a primary HMW question to capture the core approach.
- Formulated secondary HMWs to address supporting challenges to aid us in the ideation

GROUPED CATEGORIES

- : Social Barriers
- : Shared Context & Connection
- : Play & Interaction

IDEATION: OVERVIEW

REQUIREMENTS

To create and evaluate ideas effectively, we refined our initial insights into **clear requirements** that each concept had to meet. This approach ensured that every concept could be tested objectively **while aligning with our research goals**.

BRAINSTORMING

We conducted a group brainstorming session that generated a **broad range of ideas**. Following this, we **filtered** the ideas through several stages to identify those that adhered most closely to the initial requirements, ensuring each idea fit our established goal.

EVALUATION

We evaluated **12 concepts** based on five criteria, **prioritising desirability** above the rest. The criteria were initially designer-based, with user input to follow later. After analysing the data in a table, the **upper scoring half of the concepts were selected for further development** in the co-design session.

CO-DESIGN



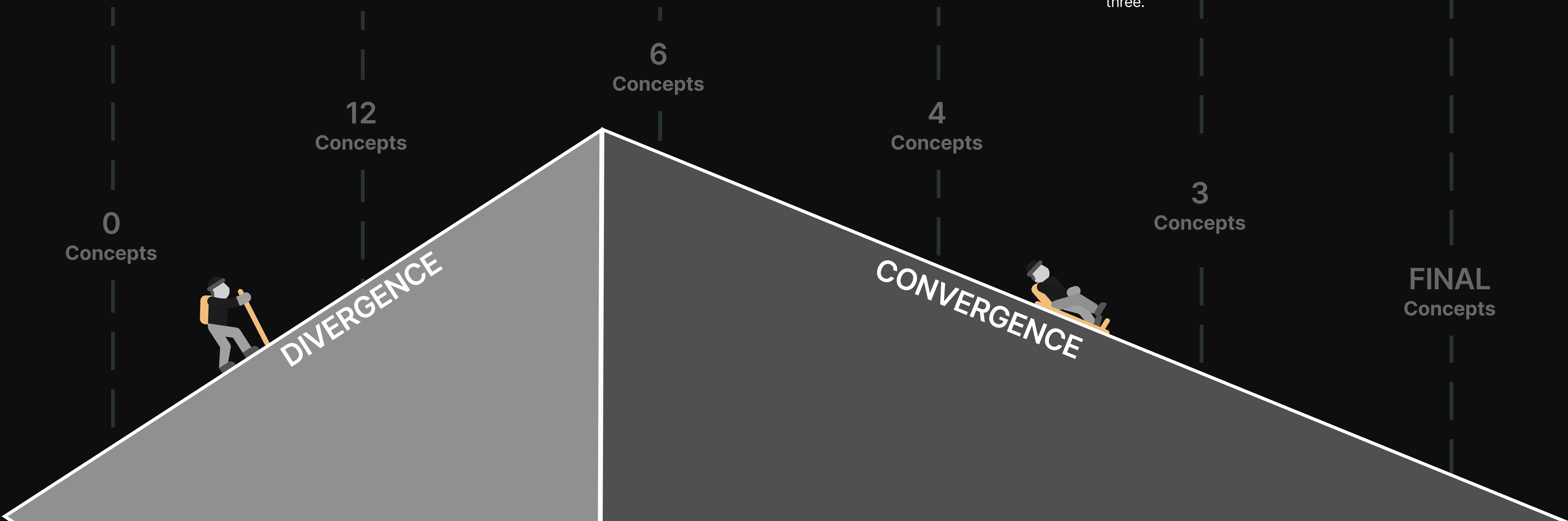
In the co-design phase, we used **opinion-based attributes to create a rating system** that enabled participants to evaluate the six selected ideas. Along with the structured ranking, we collected **detailed feedback on each concept**, allowing participants to express their thoughts more freely.

PROTOTYPE

To minimise designer bias, we developed a **low fidelity digital prototype** for one of the ideas. This simple two-player game was designed to simulate the concept, allowing us to **observe user interactions objectively**, independent of our opinions. This step helped narrow the concepts down to the final three.

DEVELOPMENT

The next phase involved further developing the final three concepts to make them more concrete and well-defined. This was achieved by **carefully reviewing the user feedback** from the co-design session and **iteratively** reassessing and adjusting the concepts.



IDEATION: CONCEPTS

GROUP BRAINSTORMING

How might we design a gamified experience that **naturally encourages social interactions** in queues while maintaining flow and engagement?

REQUIREMENTS



- Must be designed for slow-moving queues.
- Must incorporate a game to engage participants.
- Must minimise phone use by offering a compelling alternative.
- Must lower barriers by signalling the space as social.
- Must allow quick and easy participation with minimal setup.
- Must operate without requiring staff supervision.
- Must be cooperative or competitive

Using these requirements as a foundation, we generated 12 initial ideas. We began by sketching out rough concepts, then refined and expanded on them to develop more polished versions. Throughout the process, we ensured that each idea aligned with the core definition of a game:

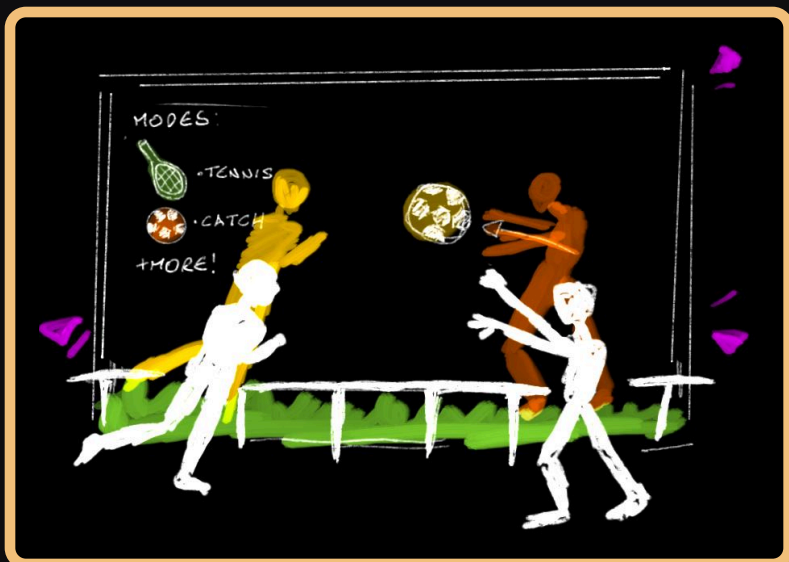
GAME

/geɪm/

- an activity that one engages in for amusement or fun.

*The game uses a camera to track the player's movements and display their digital body on the screen, allowing it to interact with various digital elements.

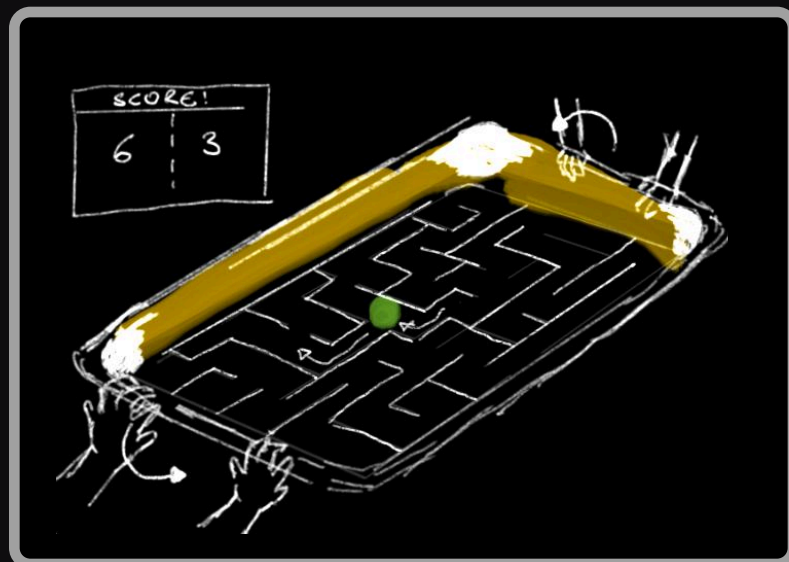
In the UK, the **Equality Act 2010** ensures provisions like separate or fast-track queues to support disabled individuals. As these measures create different queueing experiences, our movement-based games have been designed with the general queueing context in mind, while respecting these existing arrangements. ^[8]



Kinetic Games* 1



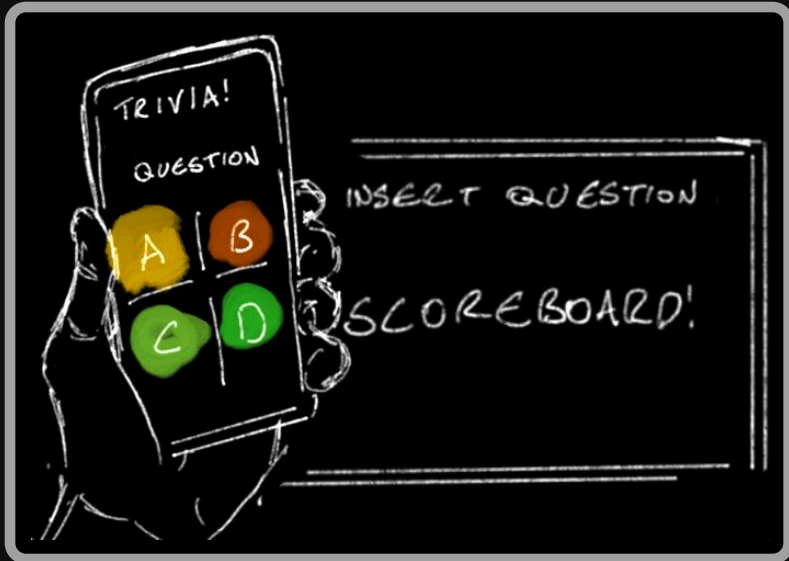
Group Mural 2



Tilting Table 3



Musical Touch Pad 4



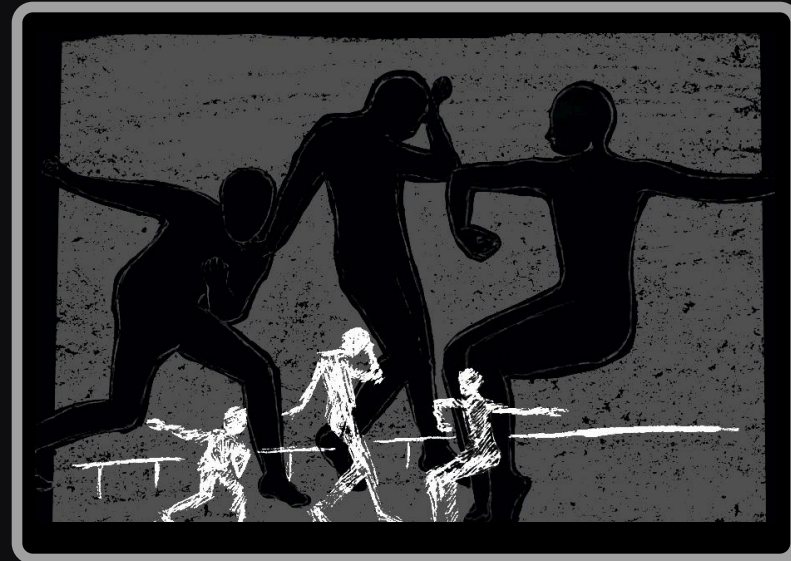
Queue Trivia 5



Simon Says 6



Dance Versus* 7



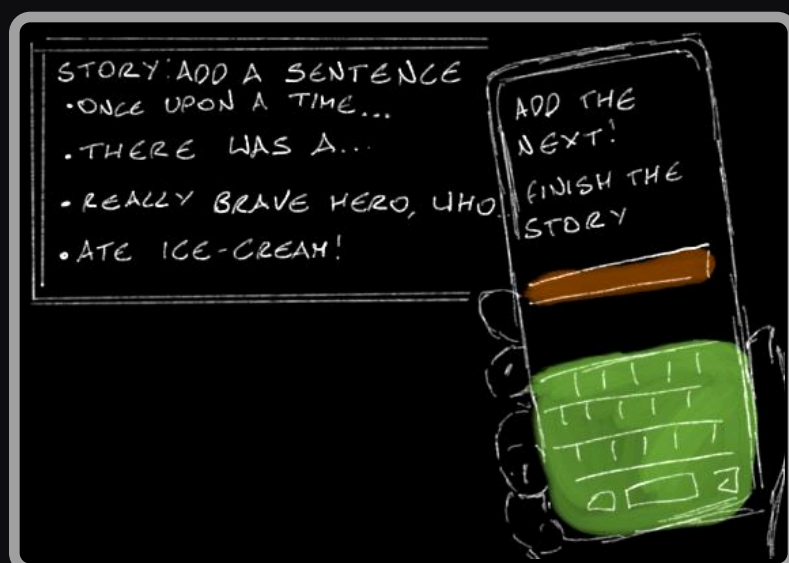
Hole in the Wall* 8



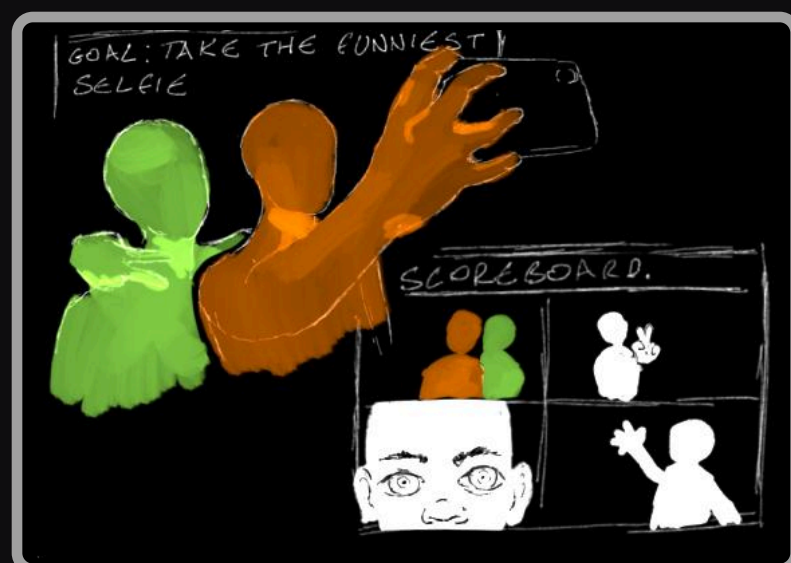
Dress-up Mirrors* 9



Physical-Digital Pong* 10



Make-a-Story 11



Selfie Games 12

IDEATION: EVALUATION

CRITERIA: CONVERGE TO 6

No.	Feasibility	Desirability	Affordability	Longevity	Originality	Total
1	3	10	2	4	4	23
2	5	3	5	5	1	19
3	3	4	2	2	4	15
4	5	4	4	3	4	20
5	5	3	4	5	1	18
6	5	3	3	5	1	17
7	3	9	2	4	2	20
8	3	8	2	4	3	20
9	4	9	3	4	3	23
10	3	6	3	4	3	19
11	3	4	4	5	3	19
12	4	6	4	5	4	23

We analysed all 12 concepts using five key criteria, primarily from a designer’s perspective:

- **Desirability:** How attractive would it be to the demographic?
- **Feasibility:** How easy would the idea be to manufacture/prototype?
- **Affordability:** How expensive would it be for us to make?
- **Longevity:** How long does the product last? Is it likely to wear out quickly?
- **Originality:** How unique is the idea?



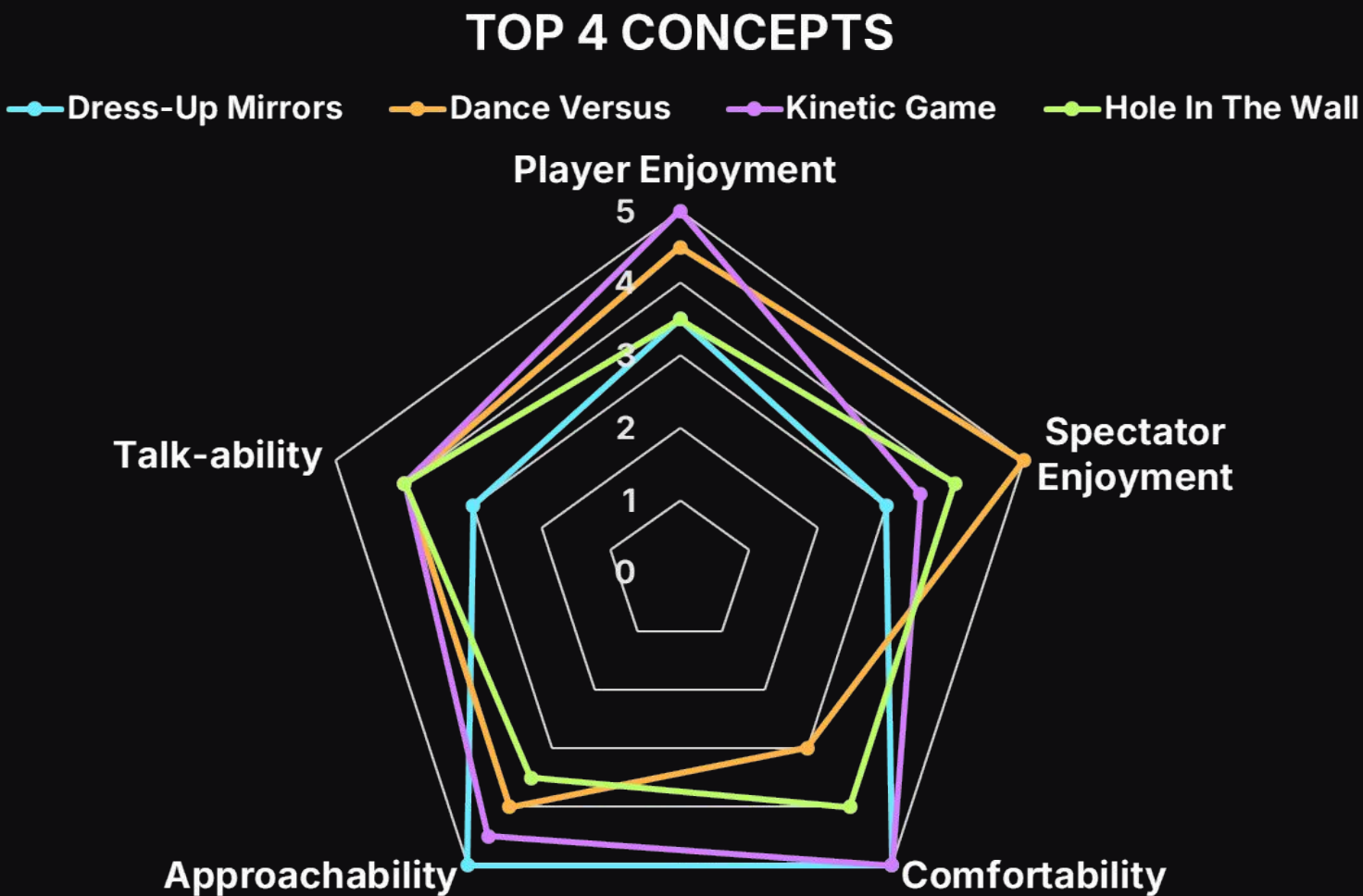
As our approach was human-centred, we placed greater emphasis on **desirability**, weighting it higher than the other criteria. While most factors were rated out of **5**, desirability was rated out of **10** to reflect its importance. We also considered **originality**, realising that people are naturally drawn to anomalies. Unique experiences are more likely to get people’s attention and encourage more participation

After scoring each concept, we totalled the results and selected the top six for further development in the **co-design session**.

Converged 6:
Kinetic Games, Musical Touched Pads, Dance Versus, Hole in the Wall, Dress-up Mirrors, Selfie Games

CO-DESIGN: CONVERGE TO 4

After narrowing down to six concepts, we took a human-centred approach by running a co-design workshop. Participants ranked each idea individually, followed by a group discussion on pros, cons, and improvements. Their feedback helped us refine and select the top four concepts while **minimising designer bias** and gaining deeper insights into



- These were the **highest-scoring concepts** from the co-design session. The participants also provided **insightful comments** on our ideas:
- One suggestion was to create a **portal system** for the kinetic game, allowing people to interact from different spots within the queue.
 - They identified key challenges for us to address, including **potential sound pollution** when there are separate “Dance Versus” going on at the same time.
 - They also helped by proposing that the mirror could display **genre specific attire**, such as Victorian era clothing.

Converged 4:
Kinetic Games, Dance Versus, Hole in the Wall, Dress-up Mirrors

LO-FI PROTOTYPING: CONVERGE TO 3

Due to group members believing in the high feasibility and design of the “**Hole in the Wall**” design, we wanted to get other opinions to prevent designer bias. So, a digital lo-fi prototype was created using ‘**Unity**’ to allow the user group to interact with the potential design.

Feedback revealed several issues with the concept. Overall, these findings led us to discontinue this idea, as the lack of sustained engagement, unclear instructions, and limited spectator appeal suggested it **would not be effective** in the queueing environment.



Further information and download on **Page 14**

This approach used three methods: designer analysis, user group feedback, and lo-fi prototyping to observe real user interactions. We used the feedback gathered from many users to facilitate the further development of three concepts.

IDEATION: CONCEPT DEVELOPMENT



For all designs, when there is no queue the screens can be used to project advertisements to generate revenue to pay for itself.

DRESS-UP MIRRORS



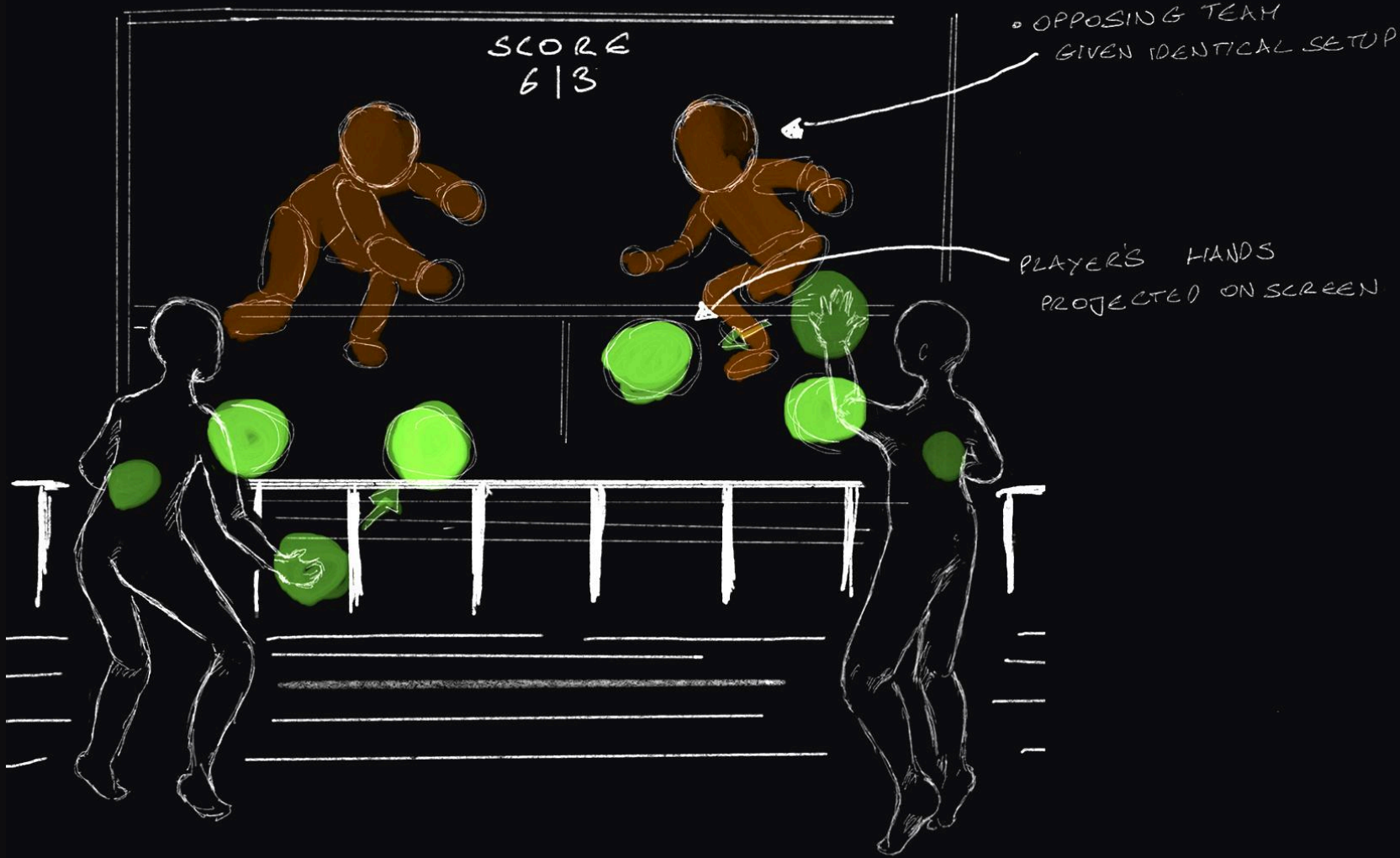
The screen functions like a mirror, using a camera to display players on a large screen. Each player has a control interface that allows them to customise their appearance by selecting clothing. The chosen items are digitally displayed on the player's reflection in real time.

Spectators can engage by scanning a QR code, allowing them to send reactions to the screen, **increasing spectatorship enjoyment** which was rated one of the lowest on the co-design feedback. The reaction emojis will be carefully selected to minimise negative comments. To further encourage engagement and improve the **talk-ability** rating, people will be set up in a curved pattern, allowing for easier interaction.



Multiple screens can be placed throughout queues, each featuring different fashion genres such as Victorian, Emo, Cyberpunk, Western, or Movie-themed styles.

KINETIC PORTALS



Using two screens and body-tracking technology, up to four players can participate in a variety of competitive games. The screens act as "portals," connecting different areas of the queue. The game automatically adjusts based on the number of players available on each side. If one side has two players and the other is empty, a 1v1 match will start. If both sides are full, a 2v2 match starts.

Each player sees their own hands represented as paddles on the screen, allowing them to control their movements and interact with the game. **Both sides can also view the other team's camera feed**, creating a sense of direct interaction despite being in different locations. A game is randomly selected to play together. Potential games include ping pong, squash, Frisbee and volleyball.

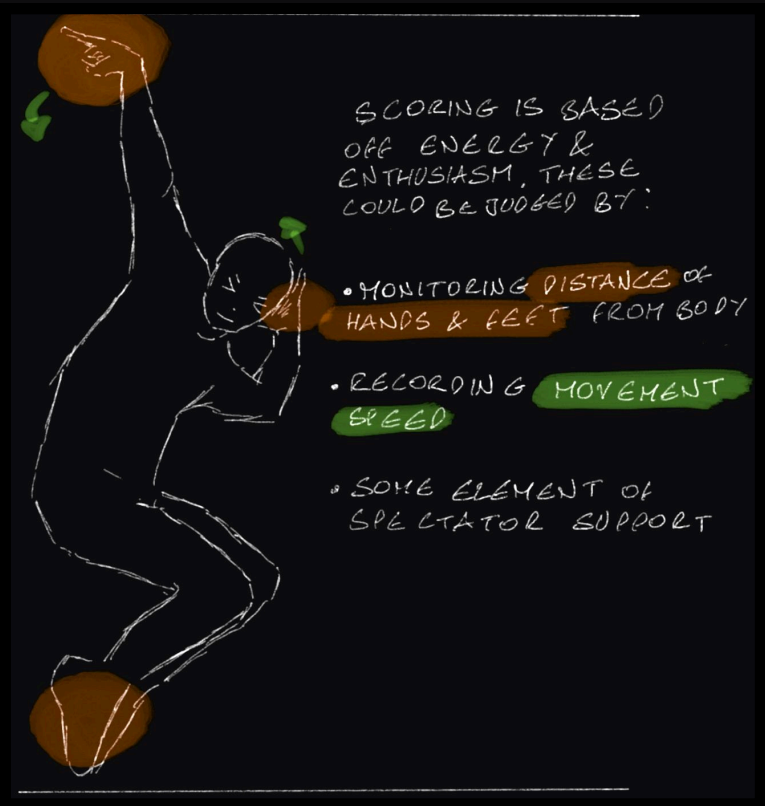
Our research suggested that in co-operative and competitive games, players naturally communicated despite no expectation to do so. The shared experience of competition made gameplay a comfortable icebreaker, allowing players to bypass initial awkwardness.

RHYTHM RUSH



Rhythm Rush is a game in which a **maximum of six people** have a dance battle, which is set in the middle of a **concert/nightclub queue**. Using motion-tracking, digital representations of the players are displayed on a large screen and they compete based on dance enthusiasm and creativity.

Positive comments are displayed on the screen to show which players are doing the best, **enhancing player enjoyment**, further by making the experience **more rewarding**. The directed speakers play music selected from popular tracks that match the genre of the performing artist or the overall nightclub atmosphere.



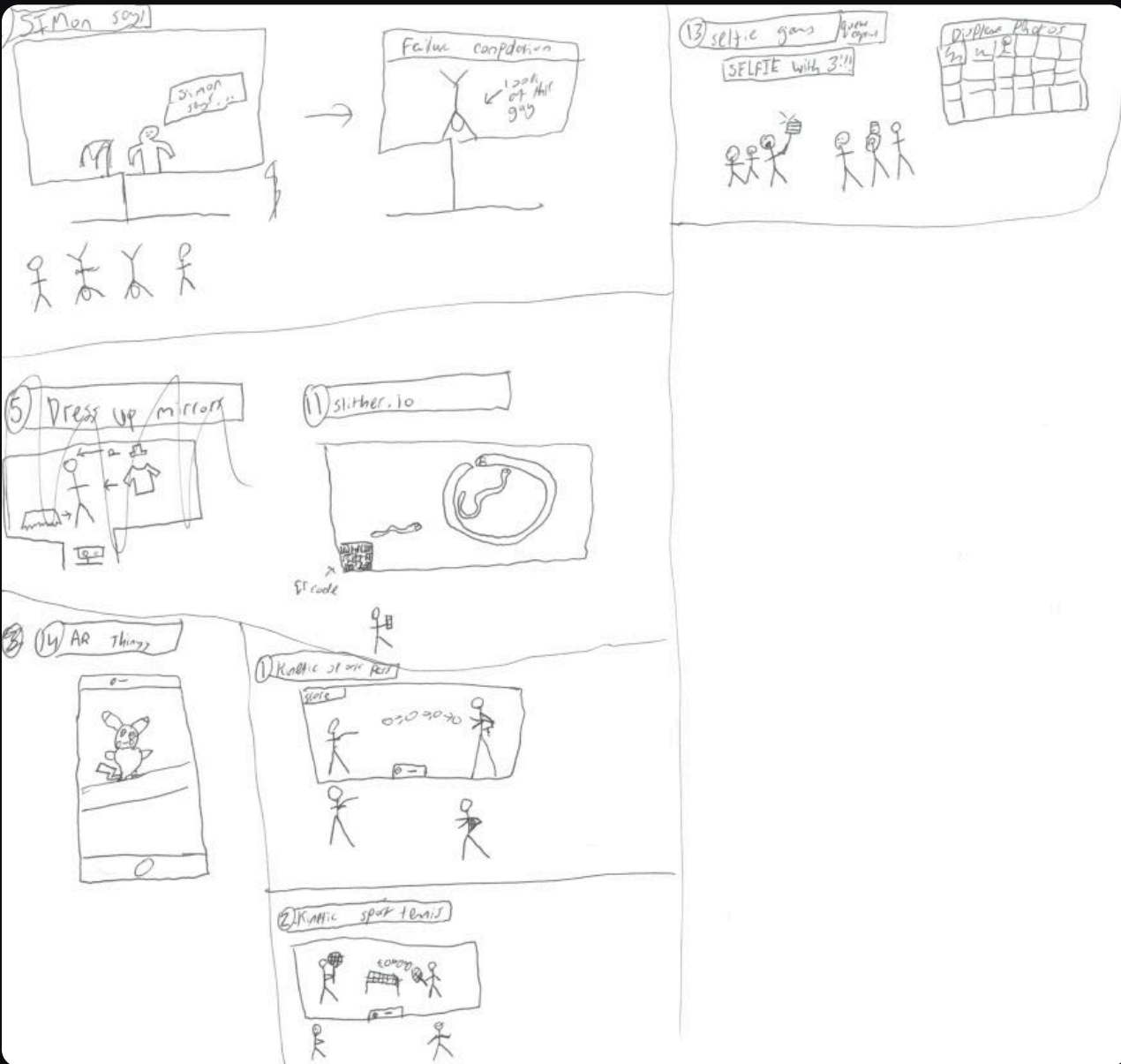
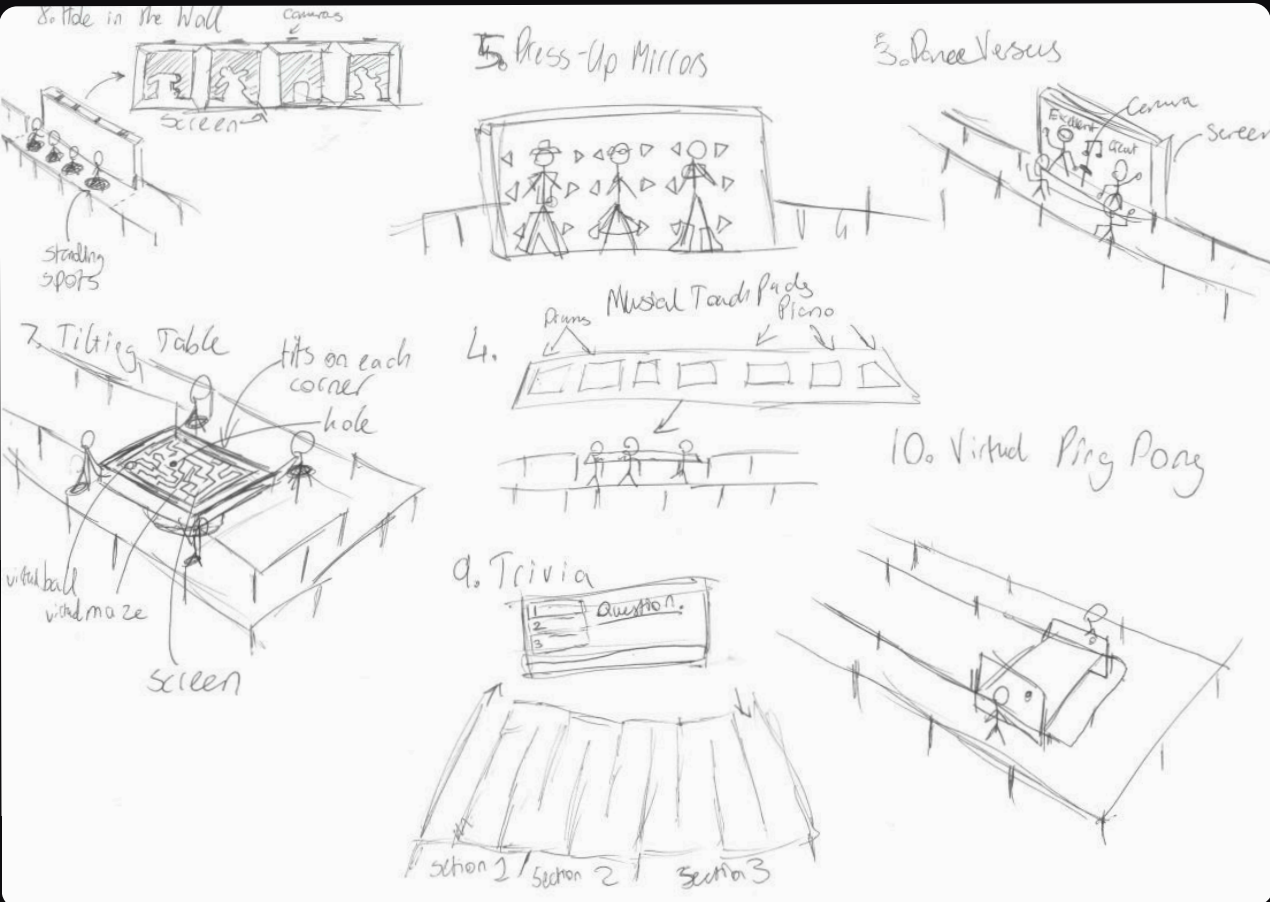
To ease the more hesitant players, dance move prompts are displayed during periods of inactivity, **improving overall comfortability** and making the environment more inviting.

APPENDICES: 1

GROUP BRAINSTORMING

ALL CONCEPT DESCRIPTIONS

- Kinetic Games** - A motion-tracking game that detects hand and foot movements, allowing players to interact with a virtual ball on screen. Different game modes, such as Pass and Tennis, encourage teamwork, requiring players to collaborate in passing or rallying the ball.
- Group Mural** - Queuers are given access to an app on their devices. They can draw anything from doodles to large creative pieces both alone and collaboratively, and all drawings are added on a big art screen - mostly likely a particularly visible wall
- Tilting Table** - A tilting table with a player on each corner, from two sides of a queue. And they tilt the table to get a virtual ball into a golf hole, this requires teamwork to navigate a maze. Then it resets and adds to a tally when the player scores.
- Musical Touch Pads** – Interactive pads installed in queue railing allow queuers to create simple tunes by pressing different spots, encouraging collaborative music-making.
- Trivia** - A large competitive trivia game where people in queue sections work together to find the answer. Leader board is shown on a large screen. Trivia can be based on the event, such as if it was a Sabrina Carpenter concert the questions would be on her.
- Simon Says** - With a camera and screen showing the people in the queue that zooms in on people who failed. Voice lines with subtitles are displayed on the screen for the task.
- Dance Versus** - A motion-tracking dance game where up to 4 players compete to see who can dance with the most enthusiasm. The screen displays each player's body in real-time, and the game scores them based on energy and creativity.
- Hole in the Wall** - A competition game, a large screen shows a wall with 4 person shaped holes. There is a camera that tracks the players movement and if the player contorts their body to fit inside the hole then they pass that stage. Players who do not are eliminated.
- Dress-Up Mirrors** - A mirror where users can play virtual dress-up games . Where a group of users can try digital costumes on from a virtual closet.
- Physical-Digital Pong**- Pong video game but the “rackets” are the players bodies and they have to move up and down to deflect.
- Make-a-Story** - An initial prompt is given on a large-screen/on mobile app. A person at the start of the queue is prompted to submit a small sentence, the next person adds a second, the third the third and so forth. A story is created as the process continues - which lets users direct their play through creativity and humour.
- Selfie Games** - A large screen assigns interactive challenges to queuers, such as “Take a selfie with the most people” or “Capture the funniest selfie.” Participants submit their selfies, which are then displayed on the screen for the queue to vote on, determining the winner in real time.

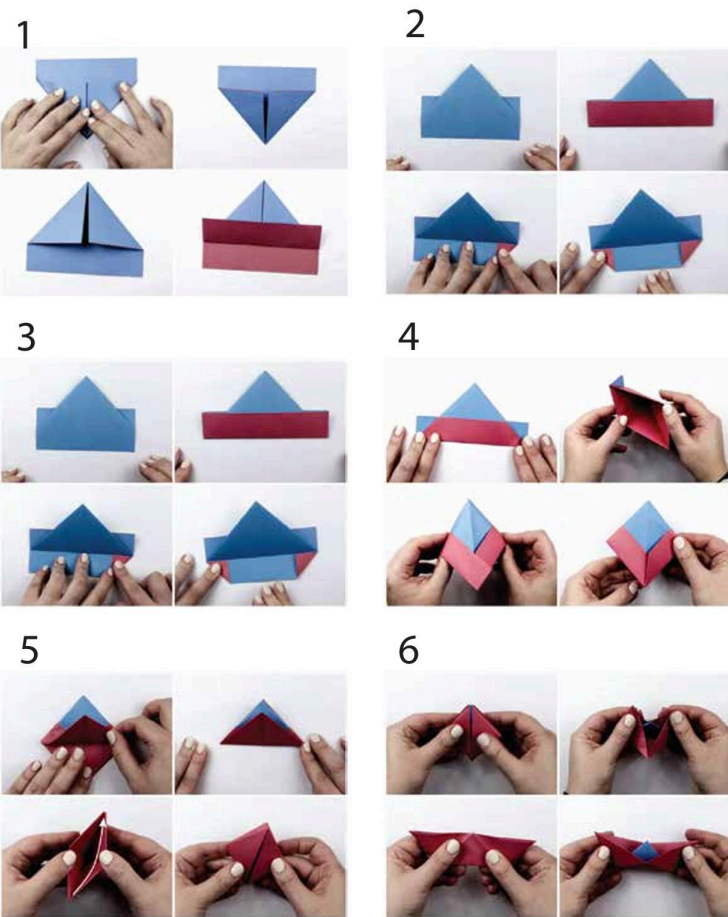


SURVEY 1

Step By Step Paper Boat Origami

- 1. Make the First Folds**
Start with your rectangular paper, orienting it vertically, with the long edges going up and down. Fold the bottom half up to the top. Fold the bottom right corner to the left corner and make a small pinch, just enough to crease the paper. Open it back up.
- 2. Create a Triangle Shape**
Fold the left and right bottom corners up and to the middle using the crease as a guide. Flatten the folded pieces down. Rotate the paper. Fold one layer from the bottom up along the bottom of the front flaps.
- 3. A Boat Begins to Take Shape**
Flip the paper over to the other side. Fold the bottom edge up in the same way. Unfold, and then fold the bottom right corner along the crease you made. Repeat on the bottom left flap.
- 4. Form the Bottom of the Boat**
Re-fold the bottom edge back up. Open the bottom of the model. Look at the corners. Flatten and then insert the overlapping flap on the left underneath the right section.
- 5. Continue Folding**
Fold one layer up to the top. Repeat on the back. Open the bottom of the model.
- 6. Finalize the Folds**
Pull apart the left and right flaps. Flatten your paper sculpture in the shape of a boat. Open it slightly. The triangle in the middle resembles a sail.

Step By Step Paper Boat Origami



KEY:

INSIGHT

DIRECTION

APPENDICES: 2

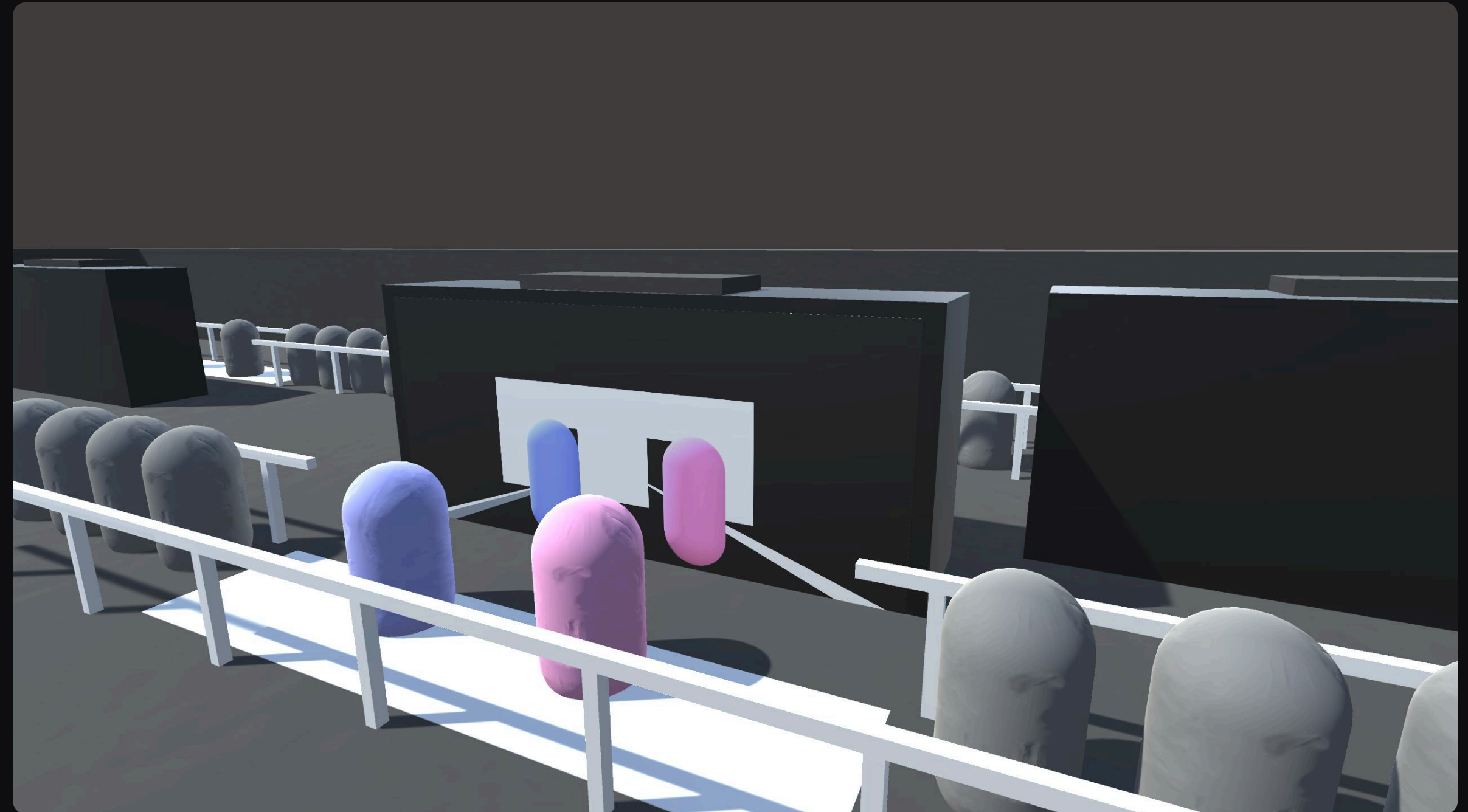
LO-FI PROTOTYPING: CONVERGE TO 3

PROTOTYPING

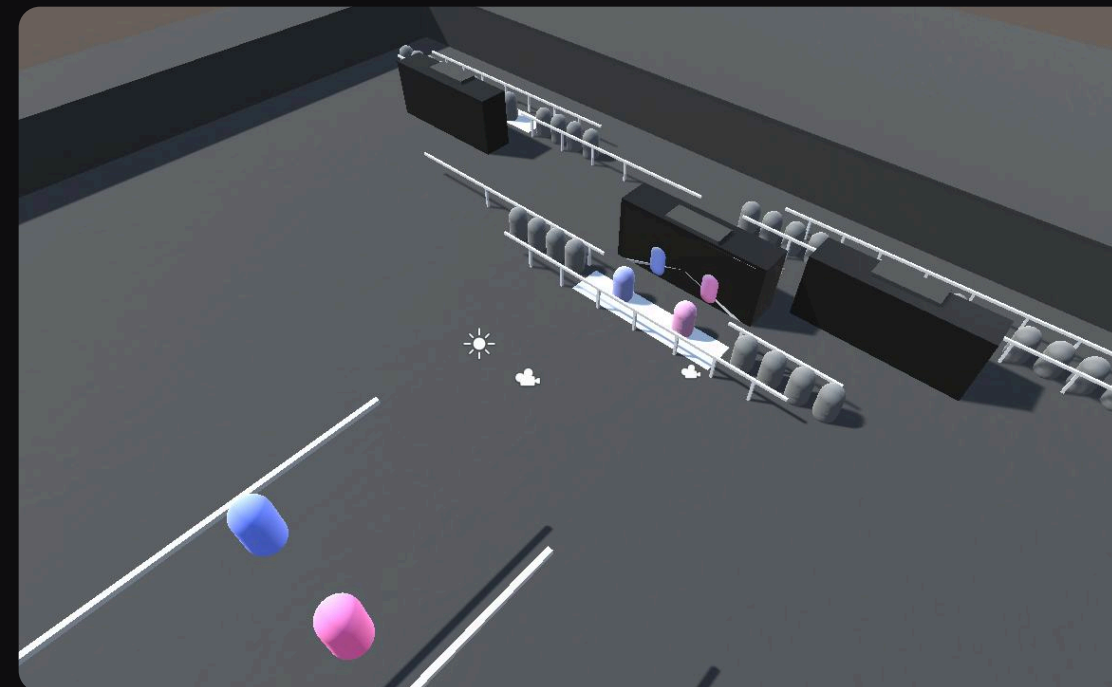
- The game was made in Unity 3D using C#.
- Two players could be controlled using WASD and $\uparrow \leftarrow \downarrow \rightarrow$. As coding the players to be able to move individual limbs would be far more than low fidelity, they could move side to side and crouch.
- The user would see the two players and a screen showing a representation of the two players in a “digital” environment. The “digital” players would copy what the players were doing.
- The walls were pre-fabricated and would randomly spawn and come towards the digital players.
- If the wall intersected with the player a text stating “Failed” would appear above the player who lost.
- You can view and play the prototype below:
<https://ruaridhm16.itch.io/hole-in-the-wall-prototype>

FEEDBACK

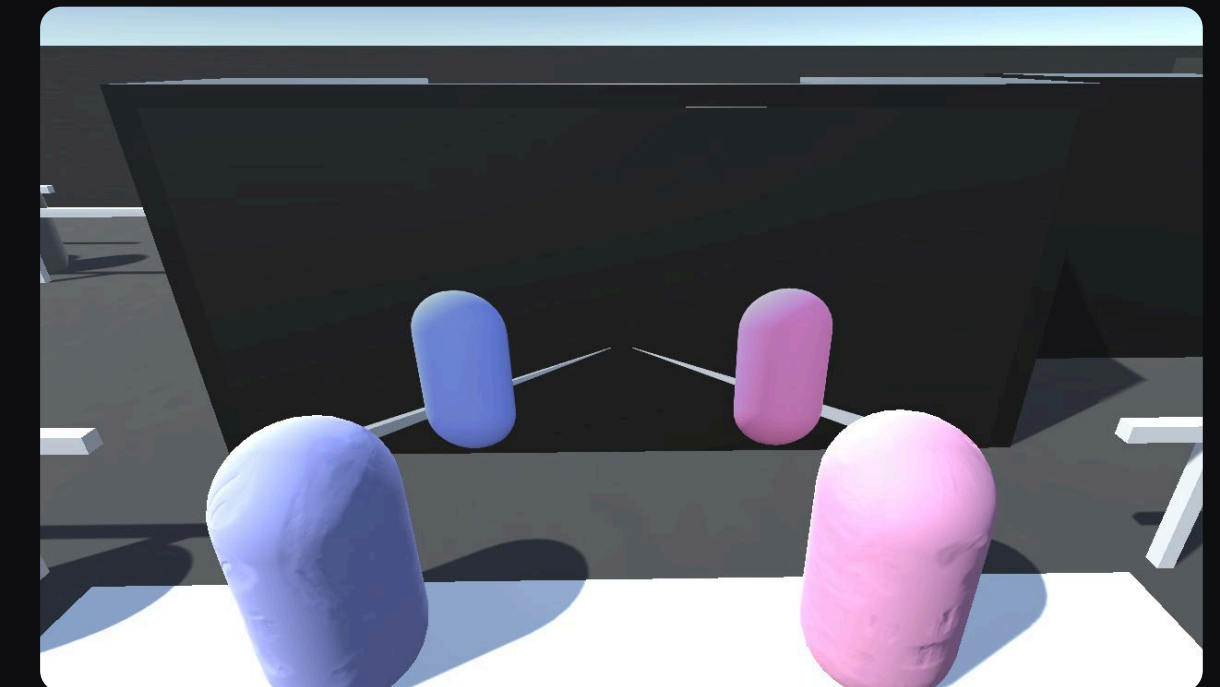
- One major concern was that the game became too repetitive over time, leading to boredom. Participants suggested that incorporating a system to vary the difficulty level could help maintain engagement for longer periods, or to add a goal with risk implemented such as having two lives (chances to miss the hole) before losing.
- A few individuals stated that if they saw the game, they would rather continue scrolling on their phones, which directly contradicted the game’s intended purpose of encouraging movement.
- Another significant issue was the lack of clear instructions. The prototype did not include any built-in guidance, meaning we had to manually explain the game to participants.
- Spectator enjoyment was notably low, as the game did not provide much entertainment value for those who were not actively participating. This limited its potential to attract more players or create a lively atmosphere within the queue.



Game View



Scene View



Screen View

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NOTION WEB

Link to notion page:

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