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DXB110 ASSESSMENT 2

Interactive Interface for Brisbane Rail

Link to Video Walkthrough

https://youtu.be/PpcovEMT9CM

## Link to Figma Prototype

https://www.figma.com/proto/cO8VOHH0rDkCE6RkDBjGwm/
dxb110-a2-wireframes-(Copy)?node-id=2%3A34&scaling=scale-
down&page-id=0%3A1&starting-point-node-id=2%3A34&show-
proto-sidebar=1
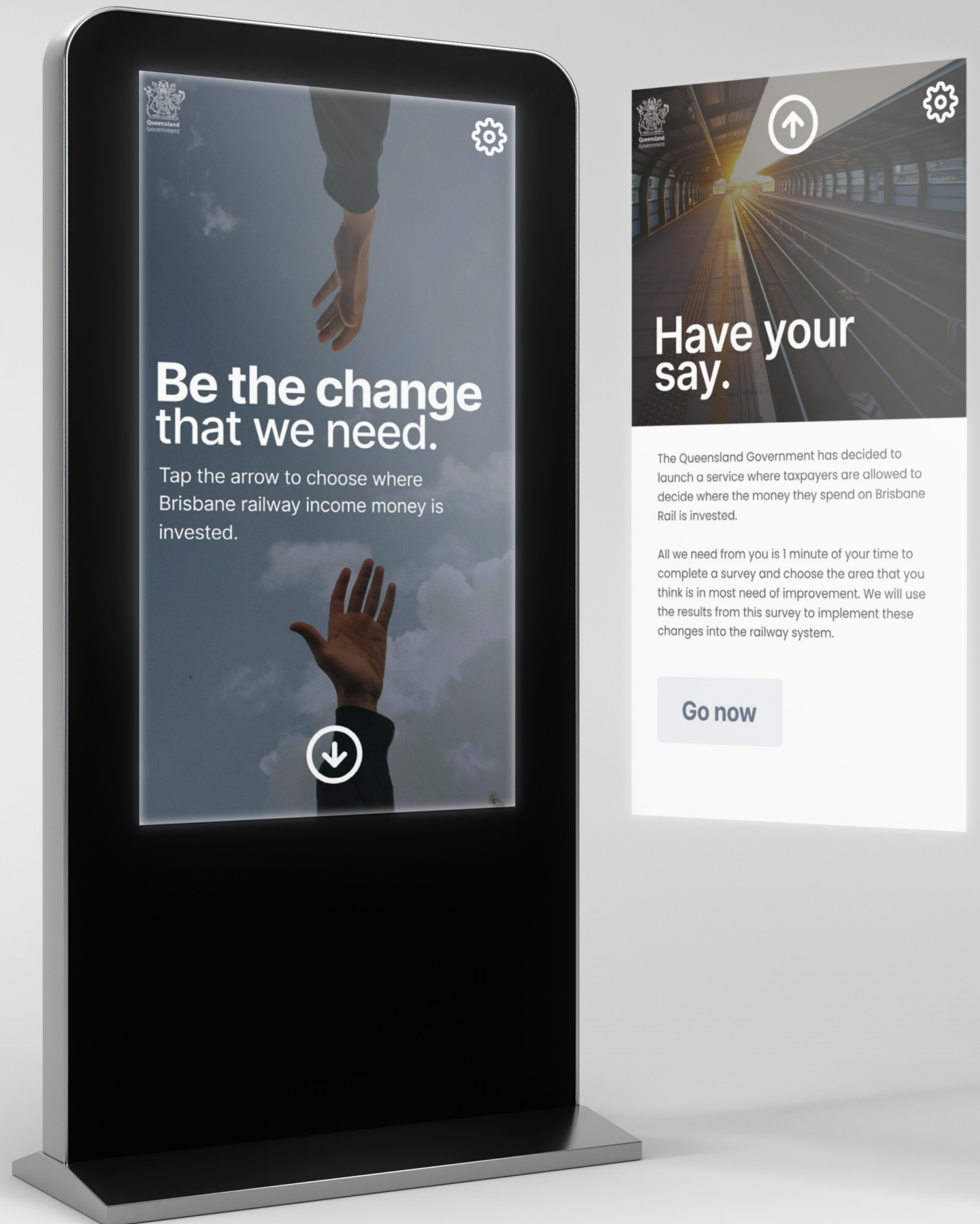
Early Concepts and Sketches

When first given this task, I went through a series of research phases. I used mind maps, flowcharts, wireframes and other sketches in order to determine what I wanted my design to look like. This was a helpful process, as it allowed me to figure out what would work best in the scenario and why.
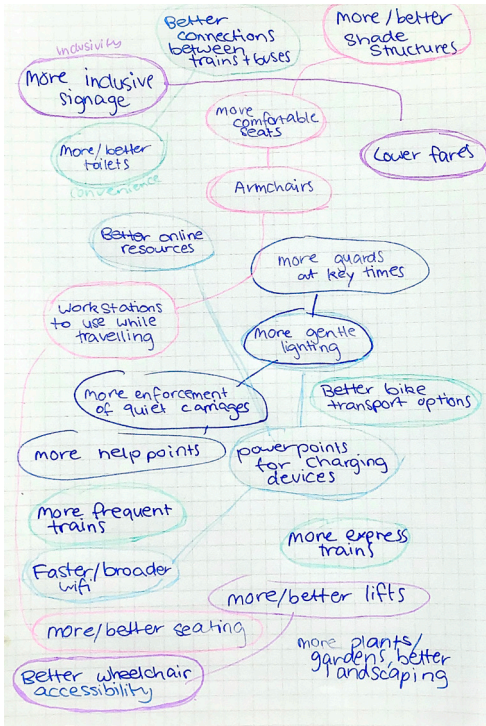
I planned out how I was going to order the categories across the interface by using a mind map.
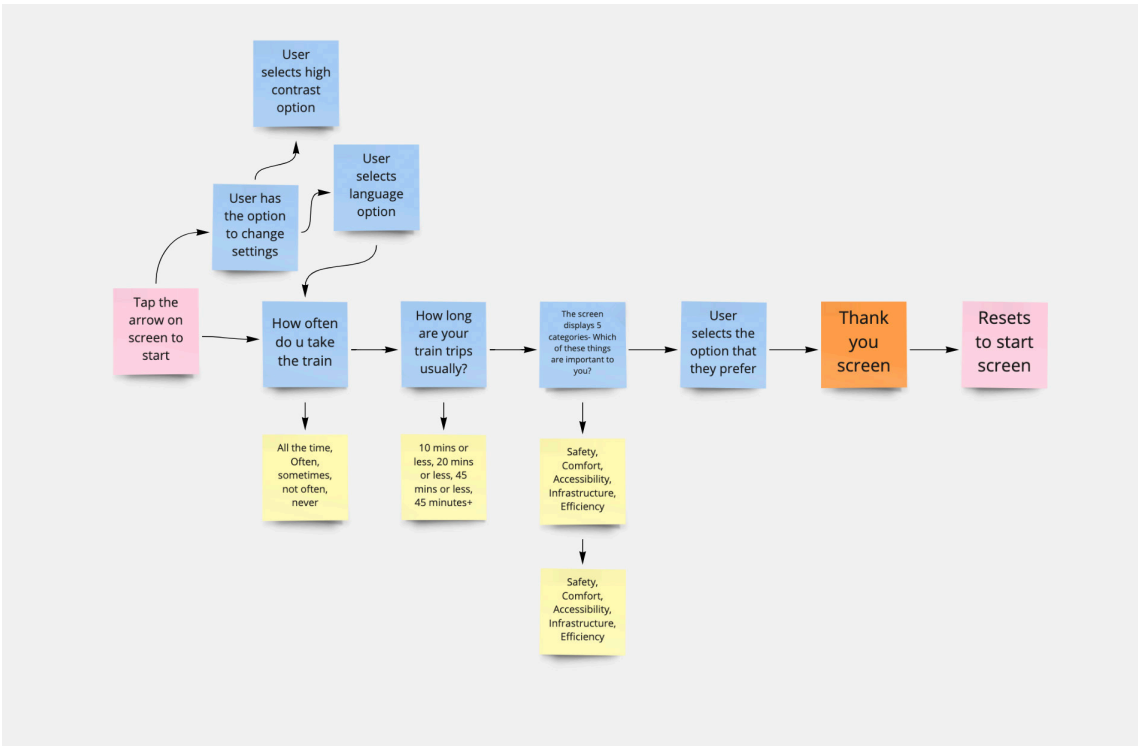
I created a basic flowchart to get a feel of the overall flow of the interface.
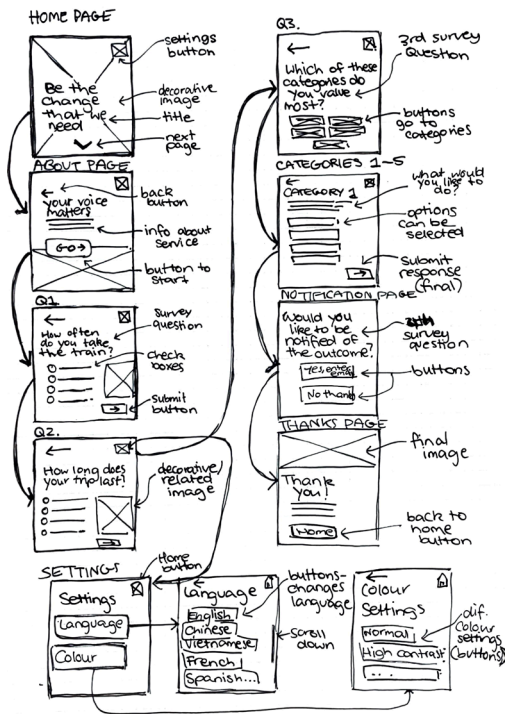
Initially, I sketched out my wireframes with pen and paper in order to get down lots of ideas quickly.
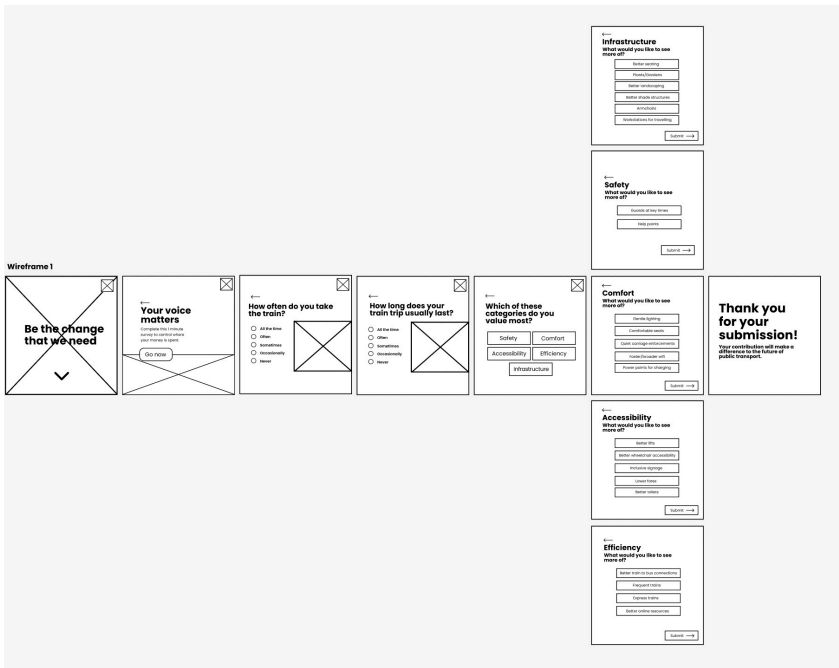
I began to transfer my wireframes to Figma, considering layout, font, images and buttons.
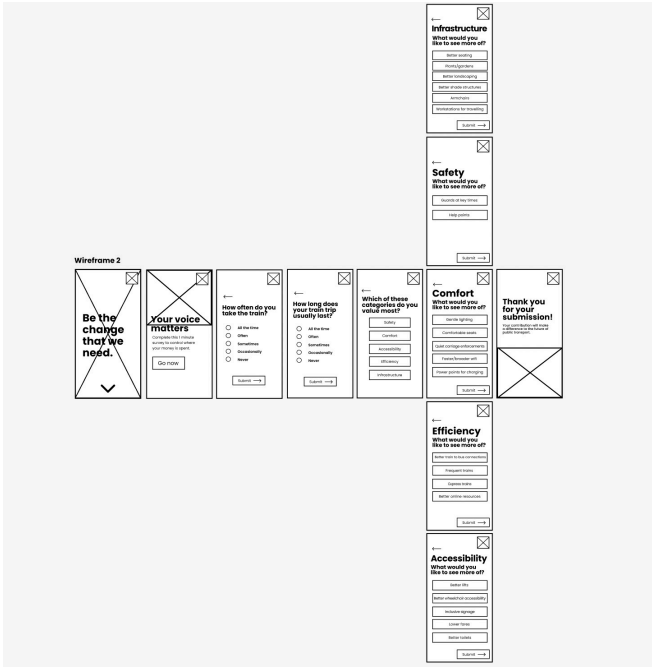
I decided to change the screen dimensions to fit a vertically standing kiosk.
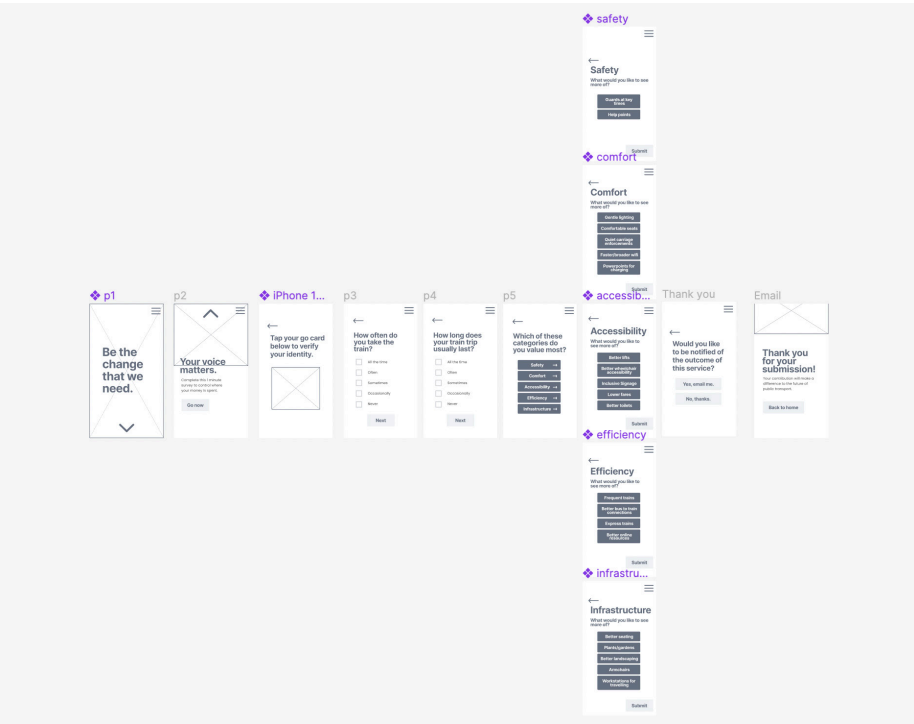
I started to refine my wireframes- getting rid of harsh lines and adding softer colours and style. I considered colour contrast, icons and focused on how the user would interpret the interface.

Train System Context

I decided that the physical interfaces should be located at the Brisbane Rail platforms next to where the trains arrive. They are situated close to the centre of the platform and are staggered in distance from eachother. The drawings below represent how the interfaces would appear in a real life scenario, and the annotations explain my reasoning behind choosing the location.

Same height as the average person to avoid physical inconveniences.

Staggered across the station to give people space and to attract a larger amount of people.

The screens dont take up as much space/ arent as intrusive because they are vertically oriented and placed near train station structures (such as poles).

2

The location of the interfaces give people an activity to do while they're waiting for the train without having to go out of their way.

Multiple screens in one area so people don't have to wait in line.

Located in close proximity to stairs/train station entrance so users have no issue noticing the screen and don't have to walk far.

The screens are built to stand with a slight backwards angle for easier user viewing.

User Flow Design

This is my refined flow map which showcases all possible options and functions that are available to the user when interacting with the interface. The different colours show different levels of hierarchy. More detail is included in the key on the right of the page.

Key:
- Start
- System prompt
- User choice 1
- User choice 2

Flow:

Home → Settings → High contrast mode → On / Off

Settings → Change language → Cantonese / Mandarin / Italian...etc

Home → About → How often do you take the train? → 5-7 days a week / 1-4 days a week / 1-7 days a month / 3-6 days a year

→ Approximately how long are your train trips? → 5-10 minutes / 10-20 minutes / 20-30 minutes / 30-45 minutes / 45 minutes-1hour +

→ Which of the following do you want to see improvement in?
- Inclusivity → More inclusive signage / Lower fares / More/better lifts / Better wheelchair accessibility
- Convenience → Better connections between trains + buses / More/better toilets / Better bike transport options / More frequent trains / More express trains
- Seating and shade structures → More comfortable seats / Armchairs / Workstations to use while travelling / More/better seating / More/better shade structures
- Smart device utilities → Better online resources / Power points for charging devices / Faster/broader wifi
- Comfort → More help points / More guards at key times / More gentle lighting / More enforcement of quiet carriages / More plants and gardens

→ Scan the QR Code if you would like to be notified of the results. → Scan QR Code / Finish → Thank you! → Return to home

Rationale of how brief is met

The interface that I have designed allows train users to easily and efficiently interact with a touch screen kiosk to decide where railway money is spent. I have spent time considering all aspects of this interface, such as its location, how it flows, how it should be engaged with, its accessibility, and how it should be designed in a way that is simple yet informative.

I decided that the touchscreens should be physically located at the train station platforms in close proximity to the entrance. This encourages users to interact with the devices while they are waiting for the train without having to go out of their way. There would be multiple touch screens in one area, and staggered in order to give people room.

I noted that in order for the interface to be inclusive as possible, the design would need to be minimalistic. I began doing this by including only the necessary functions needed to interact with the interface. I also needed to consider aesthetics, so I ensured that all pages were consistent in colour, font and style. I added images that were pleasing to the eye to evoke a sense of comfort within the user. These features encourage people who have low tech competence and users short time constraints to interact with the interface.

The overall flow of the interface is efficient and straight to the point while also informing the user of what the service will achieve. A good example of this is with the 'About' page, where I have used text hierarchy to get around the fact that I needed to include a lot of block text. Under the train system improvements section, I made the large number of categories less intimidating by going through a process of sorting them into five larger categories. This gives users a more comfortable perception of the interface. I designed the category buttons as large and round to assist with the feeling of navigation safety. I wanted users to be reassured that they could go back and change their mind if needed.

The accessibility and dexterity of the interface was another important factor that I had to consider. I had to ensure that the touchscreens were usable by minorities, such non-english speakers, and people with visual impairments. This led to the inclusion of many different language options and the implementation of a high contrast mode, which increases legibility.

The icons next to most buttons act as another way to get around a language barrier and request interaction from the user. For example, a non-english speaking user would be able to figure out how to change the language by navigating to the 'cog' icon (settings), then navigating to the 'language' icon. After reaching this stage, they would be able to easily navigate to their native language.

Overall, I feel that I had success when creating this interface, as it functions as intended and was designed with accessibility in mind.

User Research and Feedback

Usability Testing Script

Hypothesis
Does the interface clearly inform you of what the service is aiming to provide while also being efficient?

Introduction
Hello! I'm Sabrina. Today I'm going to be presenting to you an interface that I have designed for the Brisbane Railway. We are testing this service to see whether it will work as intended. There are no wrong answers- we are simply looking for any feedback on how much the interface makes sense to you, and to identify any issues.

Warm-Up Questions
1. Do you use the train to get places very often?
2. Are you comfortable with using computers/screens?
3. How happy are you with the state of Brisbane public transport?

Test Scenario/Tasks
1. How would you change the language?
2. How would you change the colour contrast of the screen?
3. Can you navigate back to a certain page?
4. How would you go back to the home page?
5. How would you navigate back and forth between pages?
6. Which category do you think you would find 'better seating' in?

Follow-up Questions
1. How comfortable did you feel navigating through the interface?
2. Did you find the interface to be efficient enough?
3. Did you understand the purpose of all pages?
4. What in particular to do you like about the interface?
5. Any other general thoughts or critisisms?

Thank you for your time!

Reflections on User Testing

From user testing with three different people, I realised there were several faults that I had not noticed before. By getting people of different ages to test my prototype, I became aware of an existing generational gap- meaning that people may have a different understanding of how an interface functions depending on their age. I found that I needed to make the interface clearer, as some text, headings and icons were reported to be too vague.

User Testing Findings

Key
- User 1
- User 2
- User 3

Observations   *Feedback*   *Changes made following research*
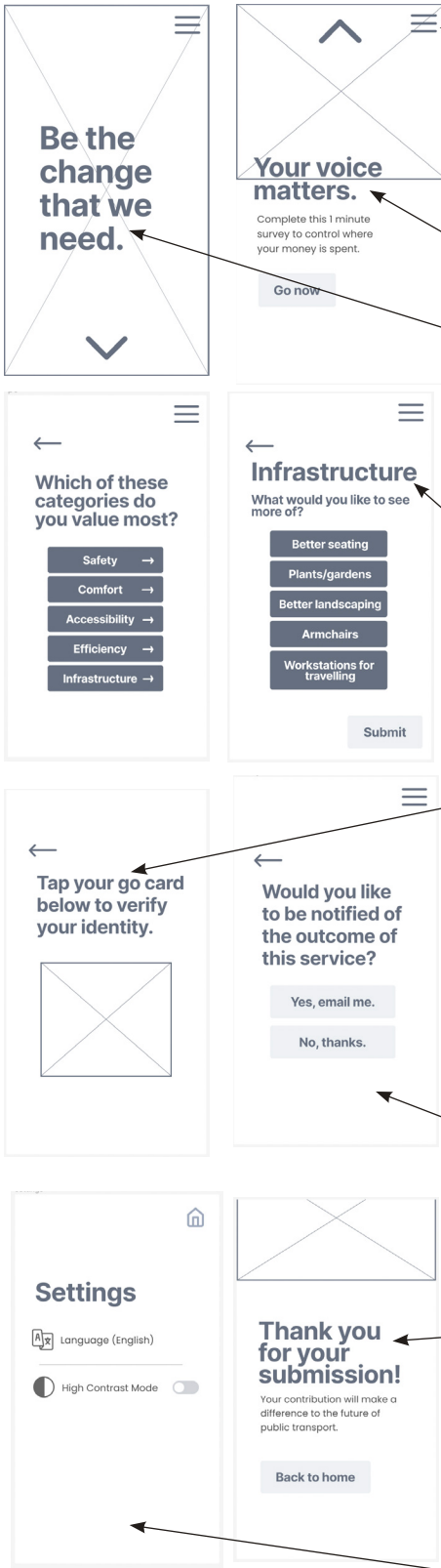
Hamburger menu is a bit vague, and may not work well for a public kiosk.

Hamburger menu was replaced with a settings button and home button.

The titles are enticing, but not very clear about what the service is actually for.

Titles were altered to provide more information as to purpose of the service was, while still being concise.

Some categories are confusing as to what they actually mean, specifically efficiency and infrastructure.

Categories were reacessed and sorted into new and more helpful ones that made sense.

The Go Card scan prompt is convenient, but could be seen as invasive.

The Go Card scan prompt was removed, and deemed unnecessary.

Entering a whole email address through a kiosk could be long and time consuming.

If wished to be notified of the results, users can enter their email through their phones by scanning a QR code presented on screen.

The website's navigation is efficient.

No changes needed.

The minimalistic appearance is good, as it avoids confusion and unnecessary elements.

Continued to design by following a minimalistic style, and added simple decorative photos.

Annotated Screenshots

I made sure to design the interface while considering users with time constraints, users who are not confident using tech, non-english speakers and users with accessibility needs such as those with low vision/photosensitivity. I have labelled the following screenshots with the reasoning behind my design decisions and alt text annotations.

Key
- Alt text annotations
- Design reasoning

Use of icons to get past language barriers.

Main title on large image draws the user's attention

Inclusion of functions that save time- the back arrow allows the user to go back without restarting if they make a mistake and the home button is an easy escape.

I have considered the fact that some train users may have time restraints, and ensured that the interface is as efficient as possible.

The options were sorted into 5 main categories to create interface organisation ('Comfort' is one of the five).

The buttons have curved edges and are large for easiness on the eye.

Different modes for people with low vision or photosensitivity. This accessibility feature maximises legibility.

QLD Gov logo

Settings button

Image of hands reaching for eachother.

Queensland Government

Be the change that we need.

Tap the arrow to choose where Brisbane railway income money is invested.

Next page

Back button

Home button

How often do you take the train?

Tick boxes 1-4

- 5-7 days a week
- ■ 1-4 days a week
- 1-7 times a month
- 1-7 times a year

Text passes WCAG 2.0

Next

Next page

Comfort

What would you like to see more of?

Selections 1-5

- Help points
- Security guards
- Gentle lighting
- Plants/gardens
- Quiet carriage enforcement

Submit button

Submit

Linguaggio

- 🇦🇺 English (Inglese)
- 🇨🇳 普通话 (Cinese)
- 🇭🇰 粤語 (Cantonese)
- 🇮🇹 Italiano
- 🇻🇳 Đồng Bào (Vietnamita)
- 🇬🇷 Ελληνικά (Greco)
- 🇫🇷 Français (Frencese)
- 🇯🇵 日本語 (Giapponese)

English, Chinese, Cantonese, etc.

The interface does not greatly rely on colour to convey a message as a consideration of those with vision impairments.

Instead of asking the user to type their response to the research questions, I included text boxes that allow the user to quickly pick their answer.

The text and questions are straightforward to avoid confusion, but contain enough information for the user to understand what's going on.

When a button is selected, the colour changes so the user is aware of what they have clicked.

The layout is clean and minimalistic- consisting of legible fonts, inclusion of necessary functions/ information only.

Considers non-english speakers by allowing them to change the language of the whole interface.