PNGHS Navigational

By Just Flip a Coin (Caitlin Naylor, Jordan Daubney, and Rachel Greenwood- all from PNGHS)

Introduction

At the start of each school year, Palmerston North Girls High School (PNGHS) prints out hundreds of paper maps of the school for each and every year nine, even though the majority of these maps are lost or crumpled by the end of the first week. Yet the maps continue to be printed each year because as long as there are new people, there are lost people.

This is why our app "PNGHS Navigational" is necessary. Today, as almost every student has a phone and uses it often, an app allows new students to blend in with the crowd as they search for their classes. Our app is also useful for teachers who are new or do not know the school aside from the building they work in, and for guests or parents coming to the school for events such as parent-teacher interviews. This is because our app also goes into more depth and accuracy (compared to the current system) about the locations of classes, staircases etc. within the buildings of the school; showing photographs, individual maps of most buildings, and giving extra written information. The app also allows users to search for a place in the school (eg. sports office) and be shown what block it is in.

The app allows the school to digitalize, and future-proof, and as PNGHS is an EnviroSchool with a core value of Sustainability, the app also has the added bonus of decreasing the amount of paper and printing resources the school uses to distribute the paper maps.

Methods

We used many methods to complete this project such as:
- ➜ **Research**
  We researched on different app ideas such as a stress-coping app, dyslexia helping app, dementia helping app, a security/safety based app, a food wastage app, an informative recycling app, an app that reminds you to take things with you (carrying on from last years project which was an app that allowed people to find lost items using a GPS), an app to help those with diabetes, and the chosen app idea: a school navigation app. We also researched into how we would find the person using the app, direct the person to their chosen destination, and make it into an actual app.
- ➜ **Use Cases**
  We created some simple use cases to help us to better understand how the most basic version of the app would work. This was so we could code the app more easily and also ensure that the app actually fixed the majority of the issues we wanted it to solve based on the user feedback. A use case is "a specific situation in which a product or service could potentially be used".
- ➜ **User Feedback**
  We surveyed students (with parental consent) and teachers twice; to find out what they wanted from the app and to see what the thought of the app once it was made.
- ➜ **Thunkable**
  We used this to code the app more efficiently and at a higher level than we otherwise could have.
- ➜ **Trial and Error of code**
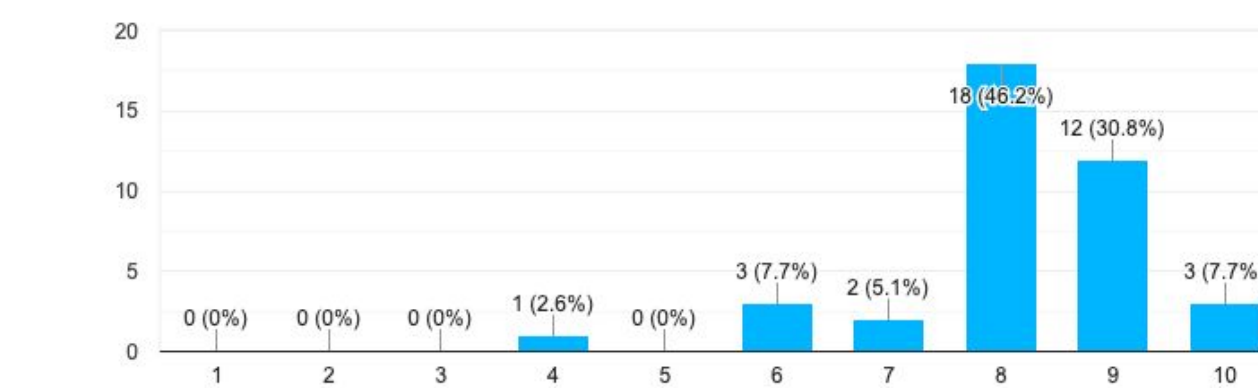- ➜ **Discussion between the team and with others**
- ➜ **Testing the app ourselves**
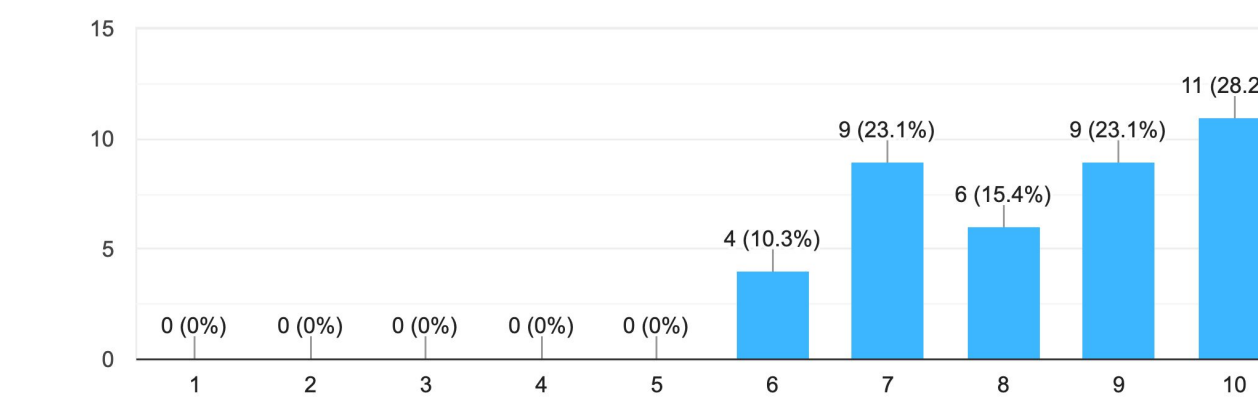
Results

From Final Survey:

Can you please rate how efficient the app is? (how fast can u find the information you want)
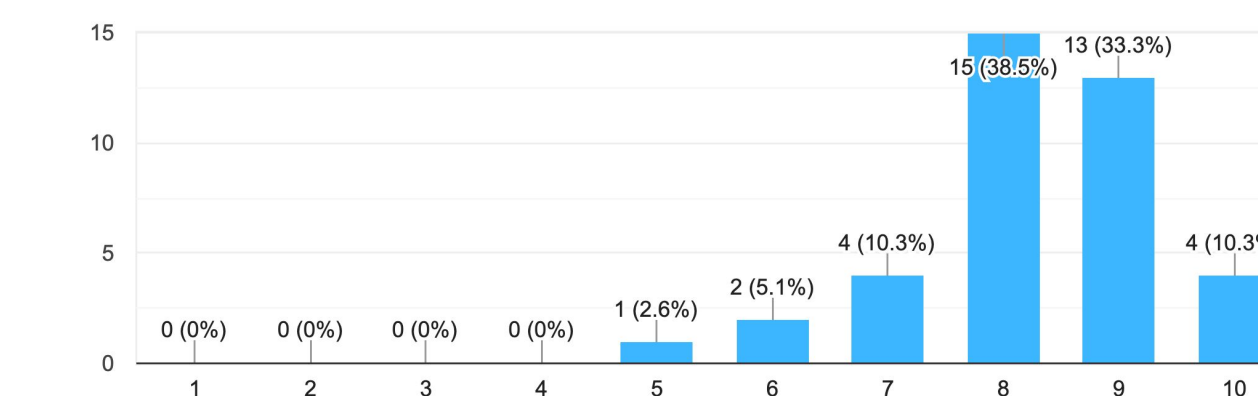39 responses

How useful are the photos of the blocks?
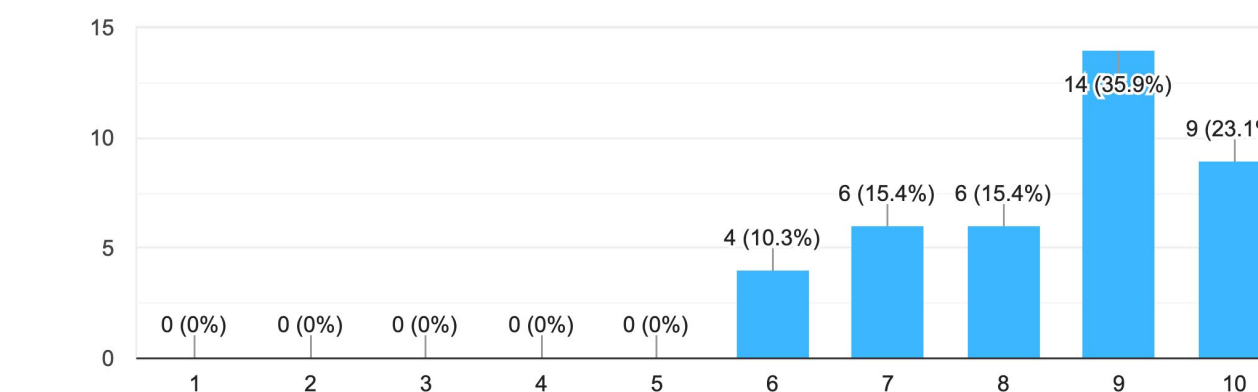39 responses

Please rate the design of the app.
39 responses

How easily can you navigate the maps?
39 responses

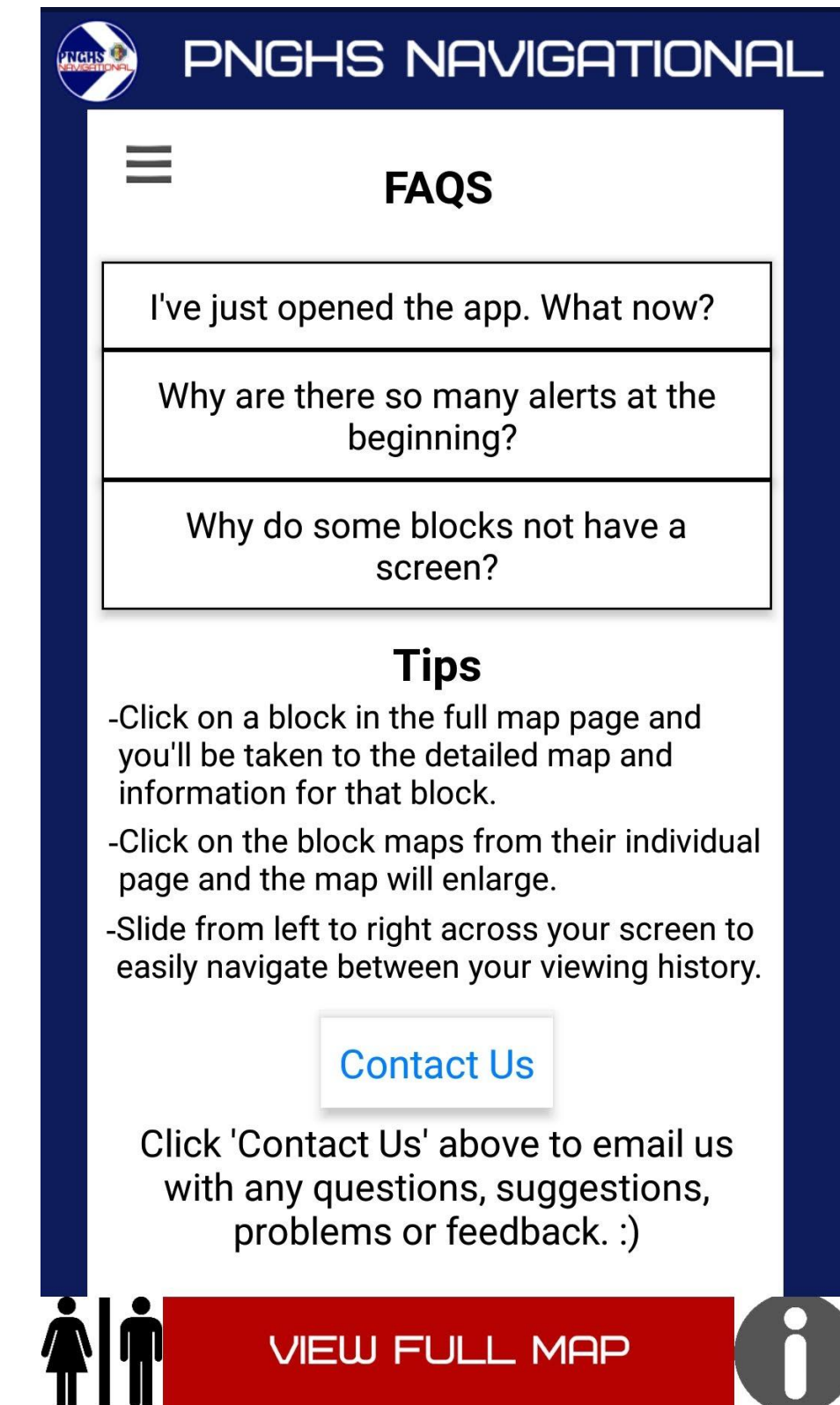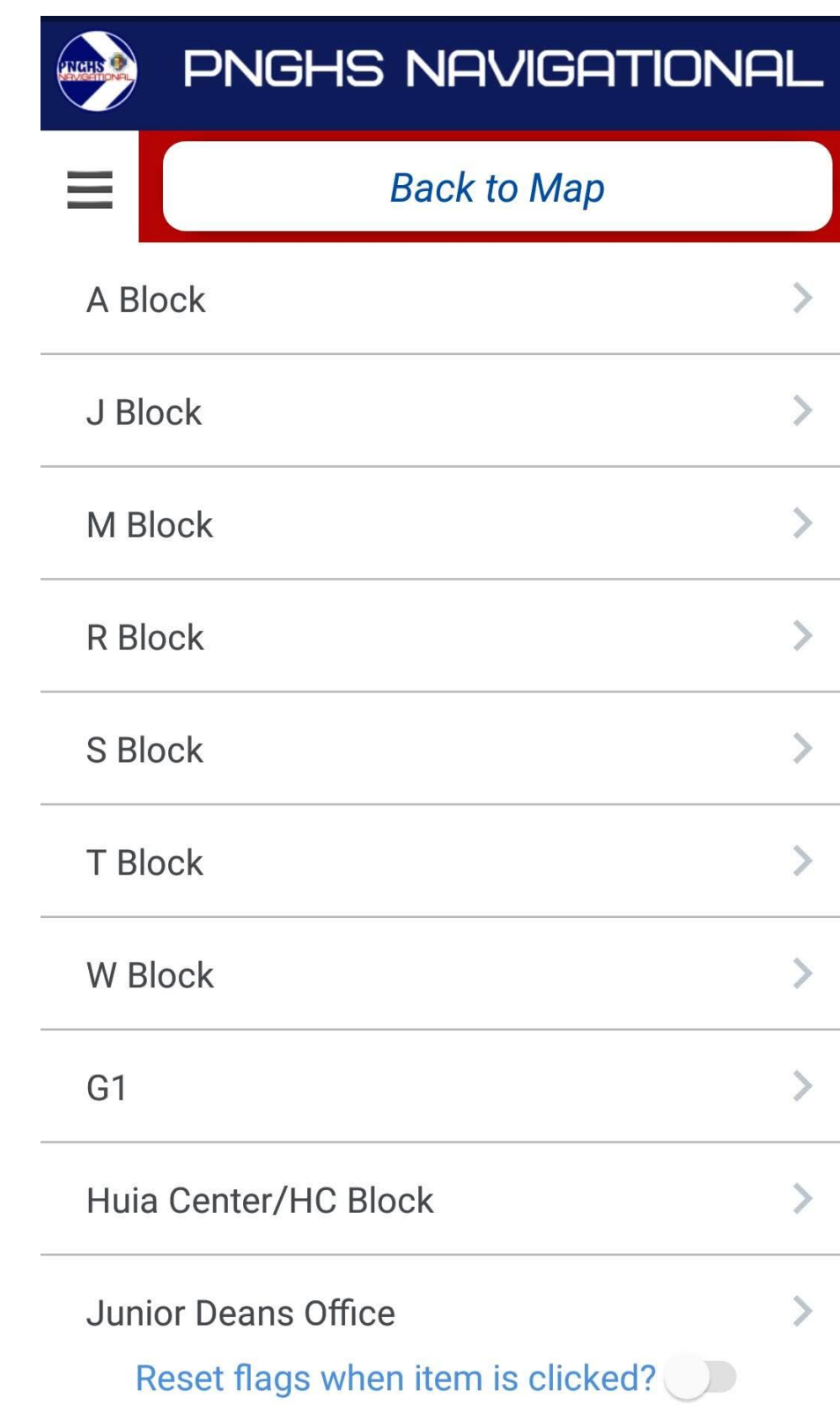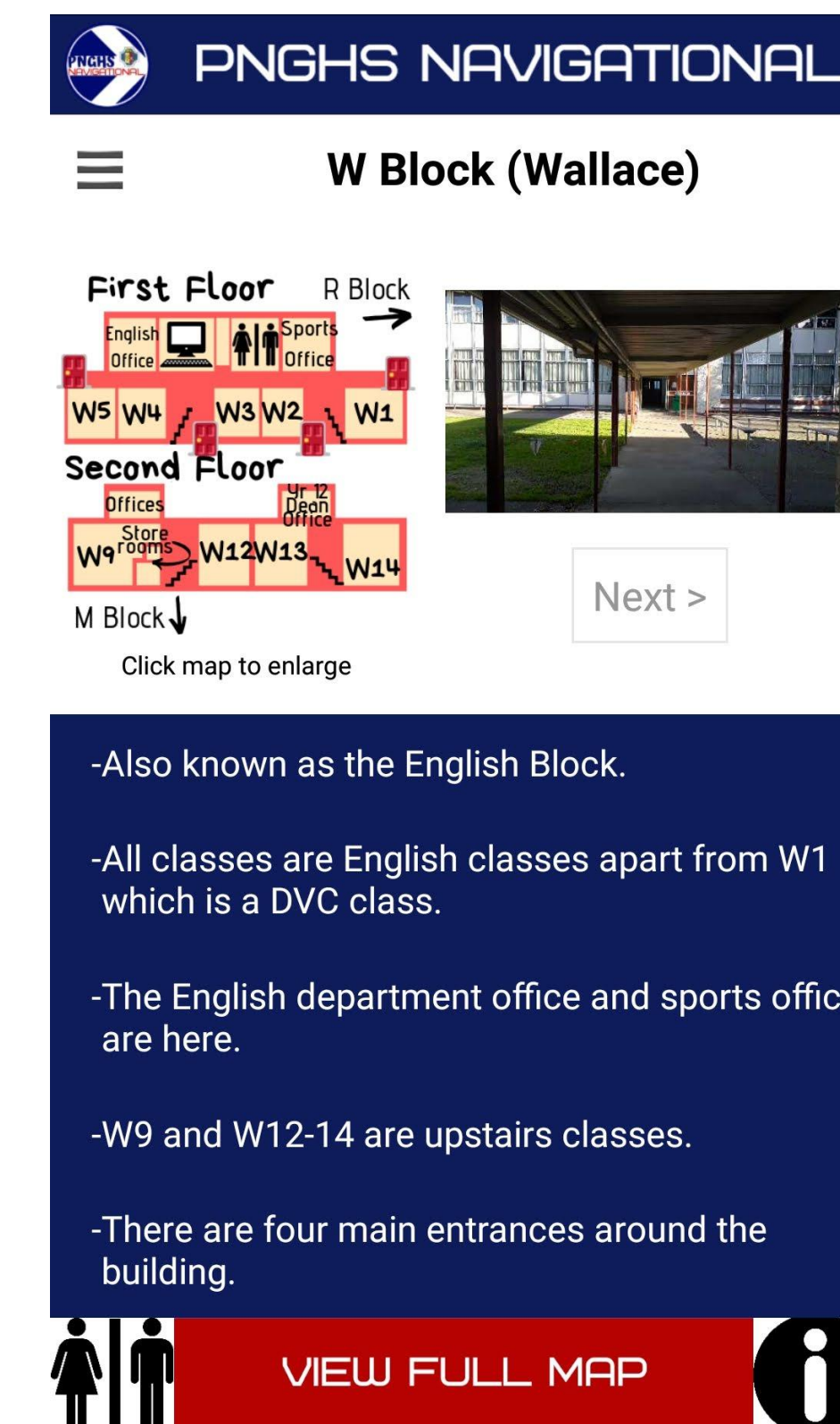For the final survey, we surveyed a total of 39 people (31 students and 8 teachers) within our school.

The survey responses told us that our app did the things we wanted it to be able to do well, as most results for 7-8+ in a scale of one to ten (ten being best) but also that it could be improved.

We improved the app by adding a back button to the enlarged block map, adding a new gym/turf screen, adding a reset flag question to the search bar, and adding more images of the buildings by putting them on a carousel you could click through on each block screen.

Final App:

Conclusion and Next Steps

Our aim, "To provide an in-depth and easy way to navigate the school to new students and teachers of PNGHS" was achieved through our app "PNGHS Navigational". The app meets the needs of our target audience of students, teachers, and parents at PNGHS. The end goal for our app is to publish it on the apple store and play store for the 2020 school year (we will be doing this over the Christmas holidays), making it accessible to all students, teachers and guests on both Android and IOS phones.

We are also considering marketing this app idea as a business for all schools in the far future, and adding additional features to the app such as best route trails or directions, a more searchable search bar, more options on the current search bar, a place for students to put their timetable and be told what class they have and several other features if or when we do Gold Crest.

Acknowledgments