Brief 2: Part 2

Final Report.

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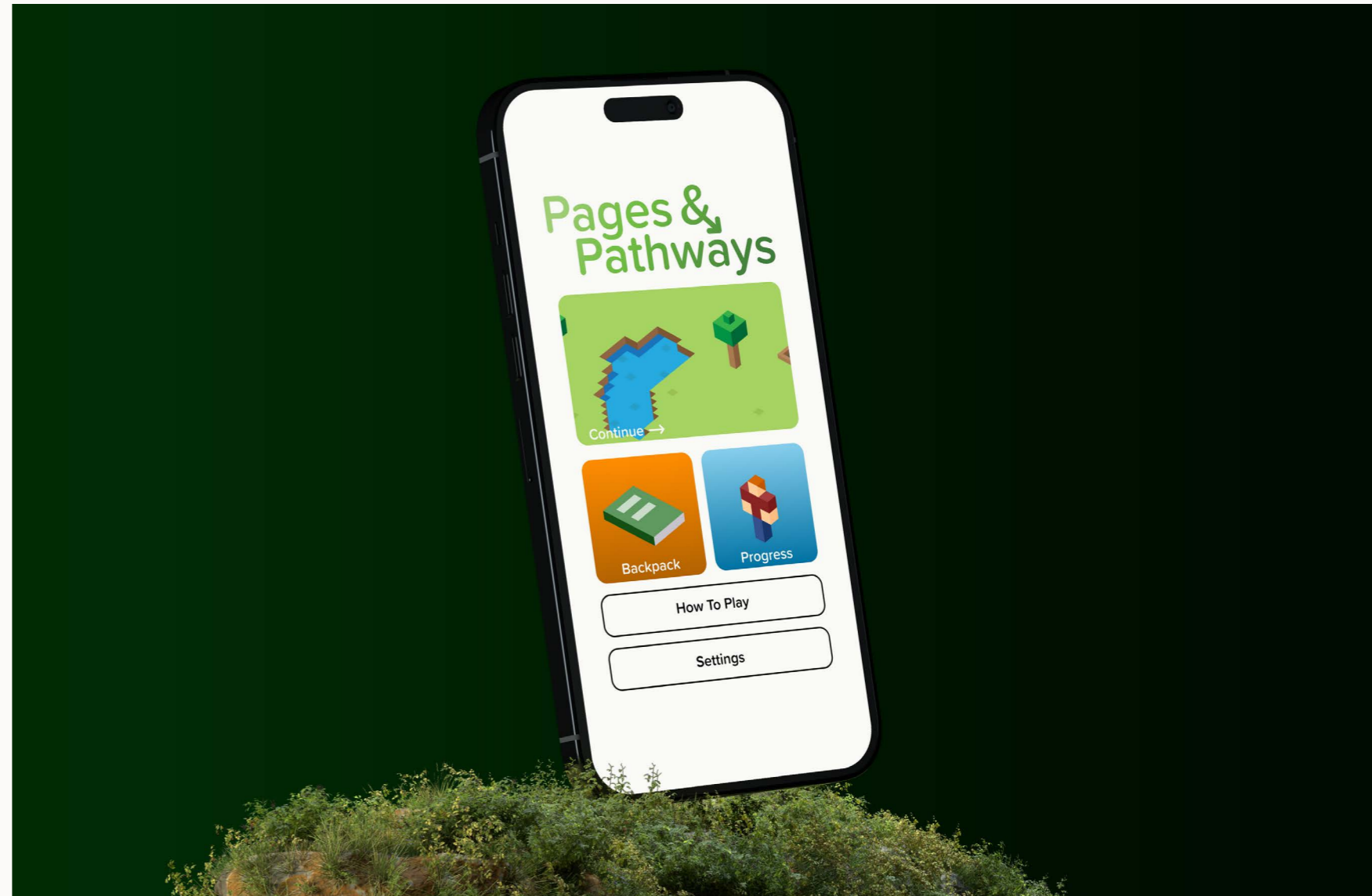
Table of Contents:

Introduction

Theme

Melton, once known for its controversial reputation, has been historically viewed as unsafe and unlivable. However, this perception no longer reflects the reality of the town today. With rapid gentrification and revitalisation (Suburban Development, 2024), Melton has transformed into one of Melbourne's fastest-growing suburbs (Carey, 2023).

The overall theme of my app is to change these outdated perceptions by offering interactive, geolocated adventures that highlight the town's hidden gems and natural landmarks. It showcases Melton as a vibrant, welcoming, and thriving community that defies past stigmas, offering both safety and dynamic growth.
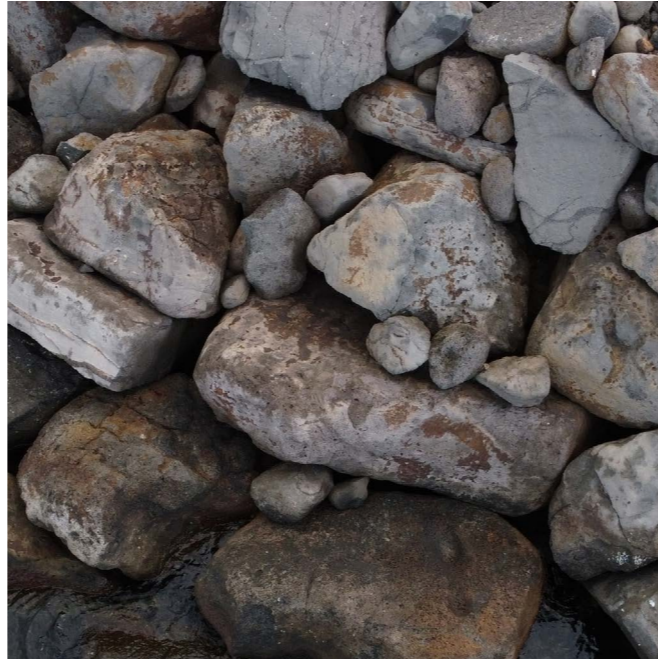
The Aims and Objectives.

Aims

- Change the stigma around Melton.
- Create adventure.
- Create community.
- Show the locals hidden treasures of Melton.

Objectives

- Encourage people to visit Greater Melton Area and all it has to offer.
- At least 8 unique interactive challenges.
- Get the locals outdoors a little more.

Development

The Visual Design:

By far one of the most challenging aspects of Pages & Pathways' development was generating the imagery that gave the app its unique visual design.

Each asset was created in Adobe Illustrator using a custom grid, created with overlapping hexagons. From here, the "Live Paint Bucket" tool was used to 'colour in' the pattern, creating 3D shapes.

Ultimately, this was an incredibly tedious task, that in hindsight probably wasn't as important as other tasks involved in the creation of the app. While that may be the case however, one of the most praised aspects of the app is its visual design.
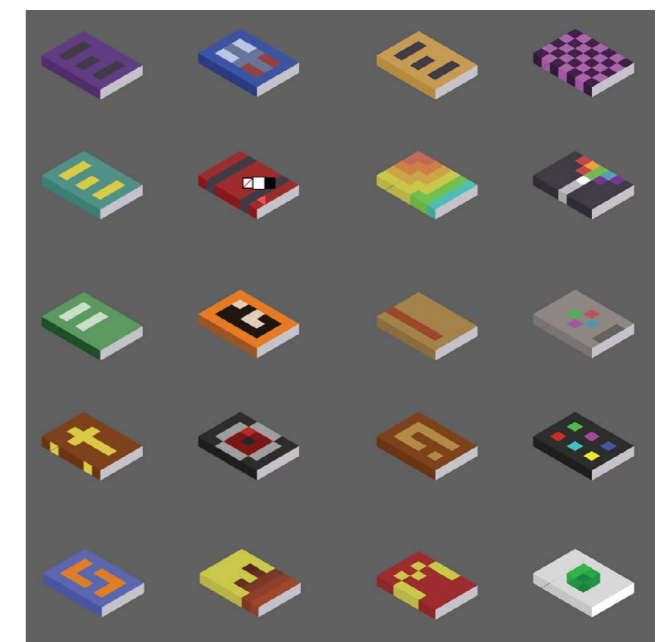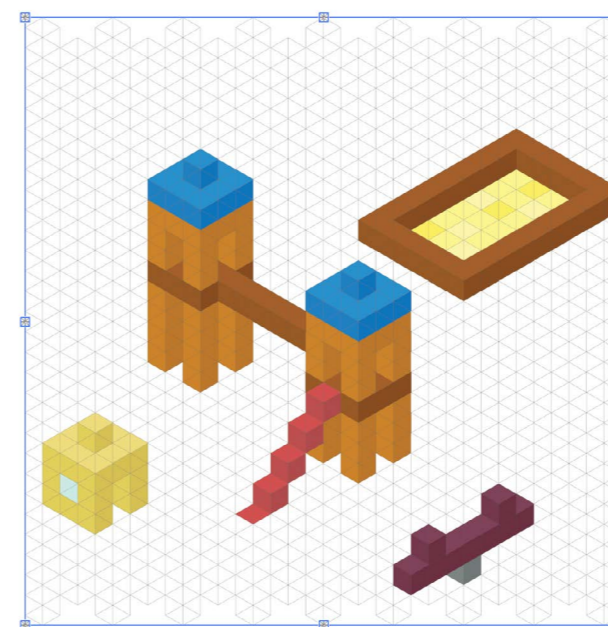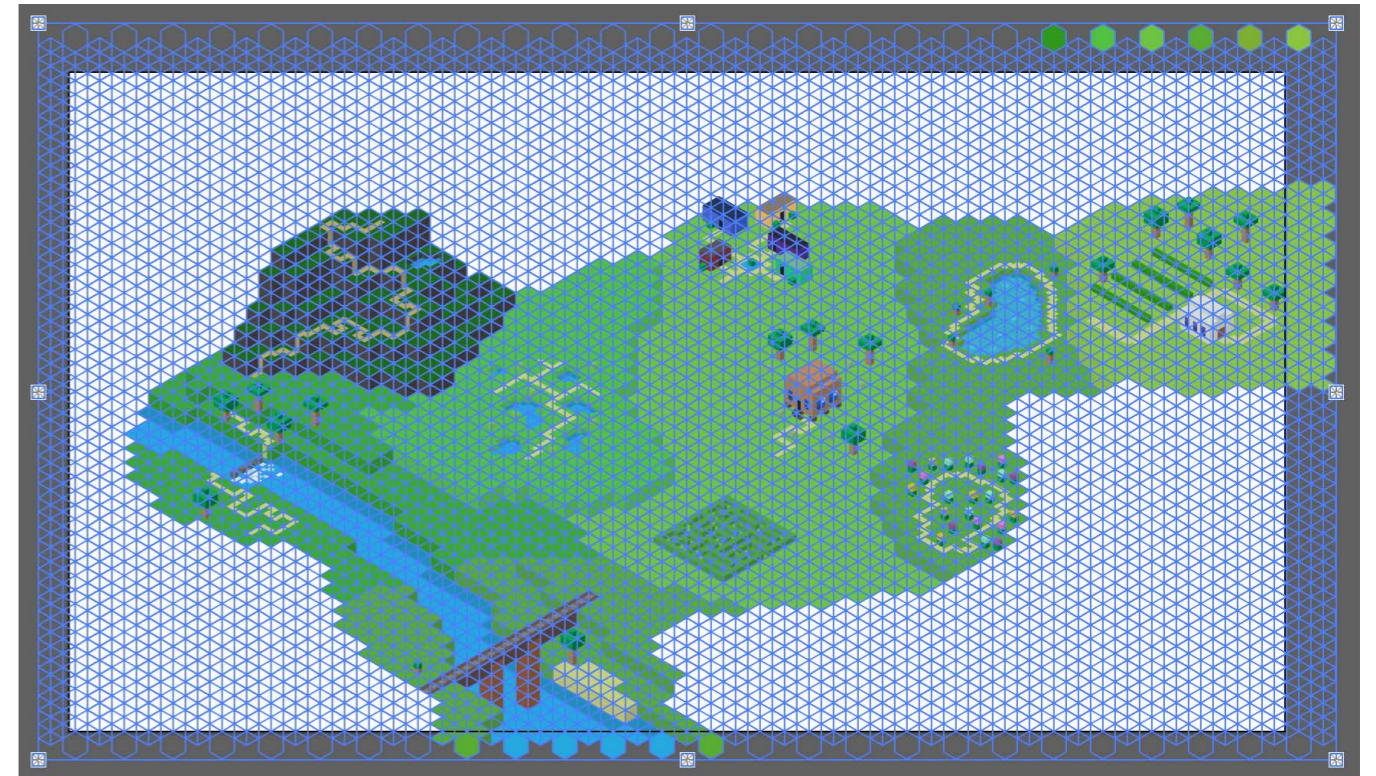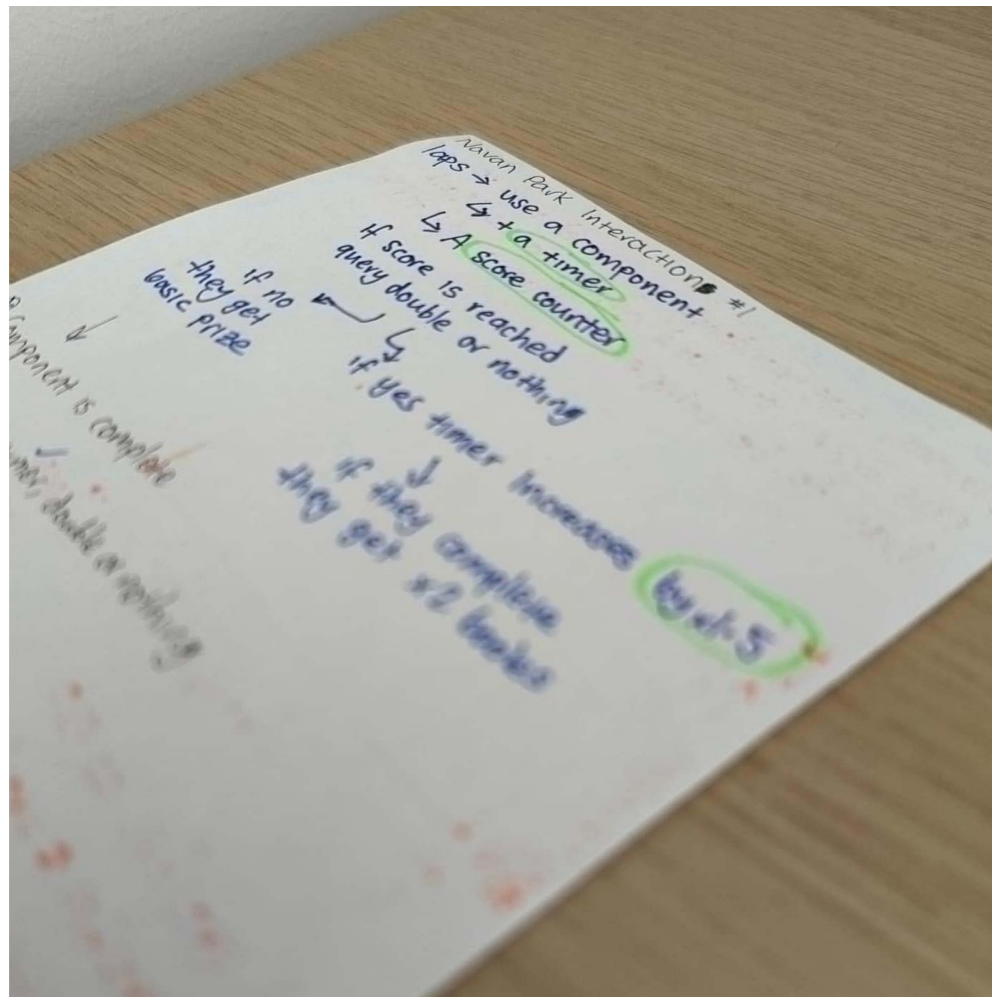
The Interactions:

Call me old fashioned but I like doing things on pen and paper before even attempting them digitally. As such, I mapped out all the interactions I planned on implementing prior to even opening Figma.

This allowed me to have a clear plan and vision in terms of what I wanted to achieve, additionally, I went through and circled any scenarios that would require a variable to function correctly. In this way I was able to create all the variables I needed for the interactions to succeed prior to prototyping them.

A full list of the interactions can be found in the appendix

Variables:

Learning to use Figma's variables initially came with a bit of a learning curve, as incorporating them into the workflow required a shift in thinking and approach. At first, understanding how to effectively apply variables across different components and design elements was challenging, with trial and error playing a major role in figuring out the best methods.

However, after some practice, Figma's variables became an essential tool in the prototype-building process. They allowed for rapid adjustments to key design aspects, ensuring consistency throughout the interface and reducing time spent on manual changes. By leveraging variables, I was able to create some rather complex interactions such as a random position generator, or a tap-and-hold counter increment.
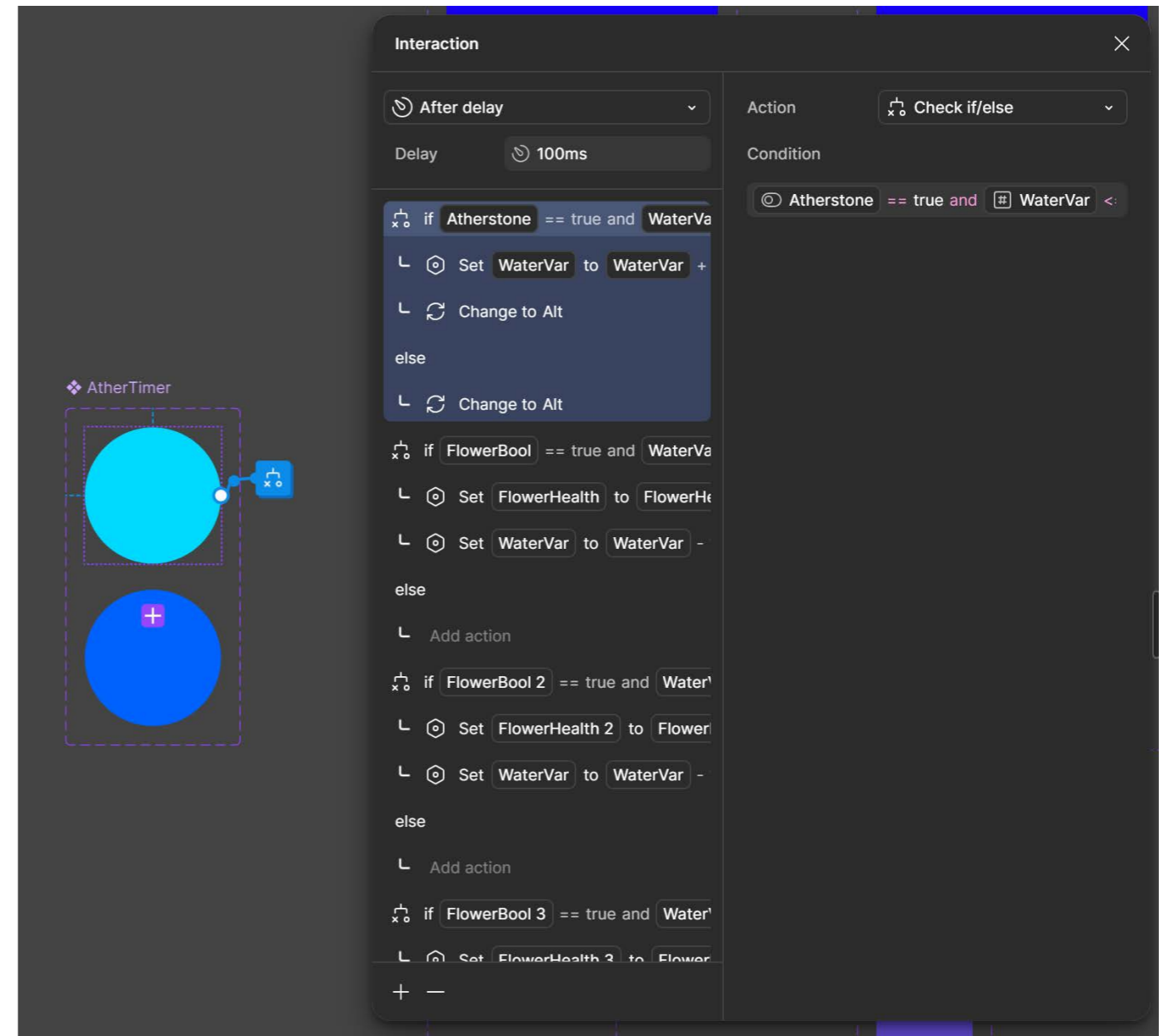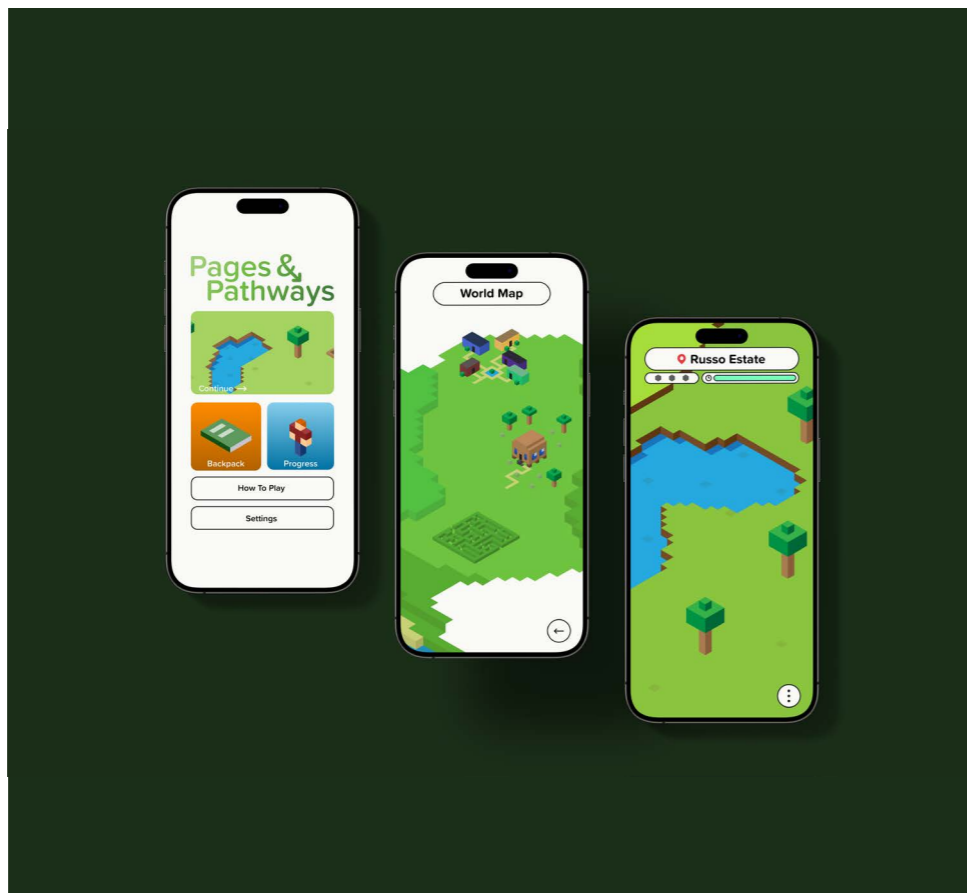
Testing:

With all the visual assets ready and interactions mapped out, assembling the prototype felt a lot like putting together a jigsaw puzzle. Every element, from buttons and transitions to visual details, needed to fit together just right to create a smooth, intuitive experience.

The prototype was then tested with 4 participants, each one providing valuable feedback that would be vital to strengthening its usability and overall satisfaction.

Field Test Findings:

By conducting the field test, key insights began to emerge:

- Some objectives were too difficult to complete (Mexicana, Margarita).

- Some objectives required too much walking. (Pepperoni, Margarita).

- The aesthetic was well received by all participants.

- Some of the interface elements were clunky and needed to be streamlined (All participants).

- Having additional challenges at each location would improve the overall experience (Pepperoni, Meat-Lovers).

- Challenges that were more difficult were more engaging. (Mexicana, Pepperoni, Meat-Lovers). This is backed by a study that concluded challenging activities boosted user engagement (McDonough, et al. 2015)

Field Test Findings:

Upon the completion of the field testing, it became clear that the prototype was still a little way off from being a user-friendly experience. The following design recommendations became apparent through the field test key findings as well as general observations:

- A clearer user interface to help users understand the task and requirements.

- Challenges that aren't so reliant on walking around.

- Adjusting the difficulty of the challenges (some were too difficult while others were too easy).

- Offering multiple challenges at one location.

- Adding in more ways people can learn about the area from within the app.
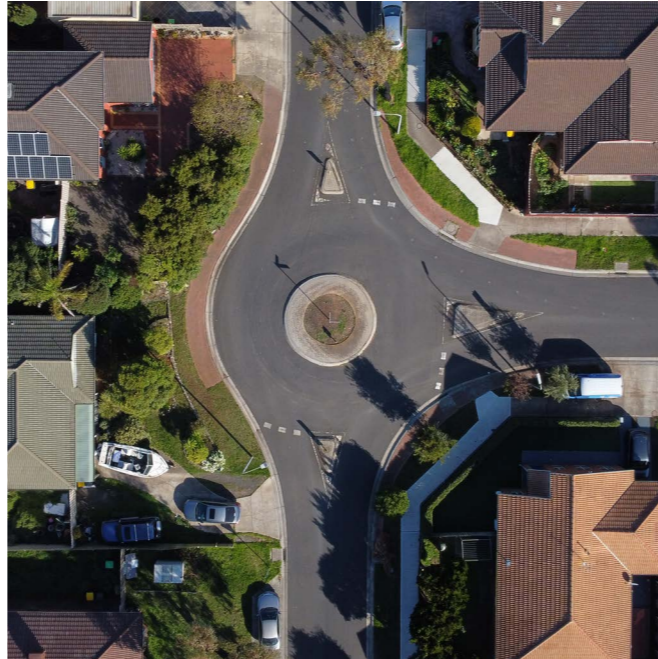
Design Refinements

Design refinements

UI Improvements:
In order to make the interface clearer to the user, the objective tracker has been removed from the kebab menu and moved to a new area beneath the location bar at the top of the page. This will communicate the user's progress better and allow for a smoother experience.
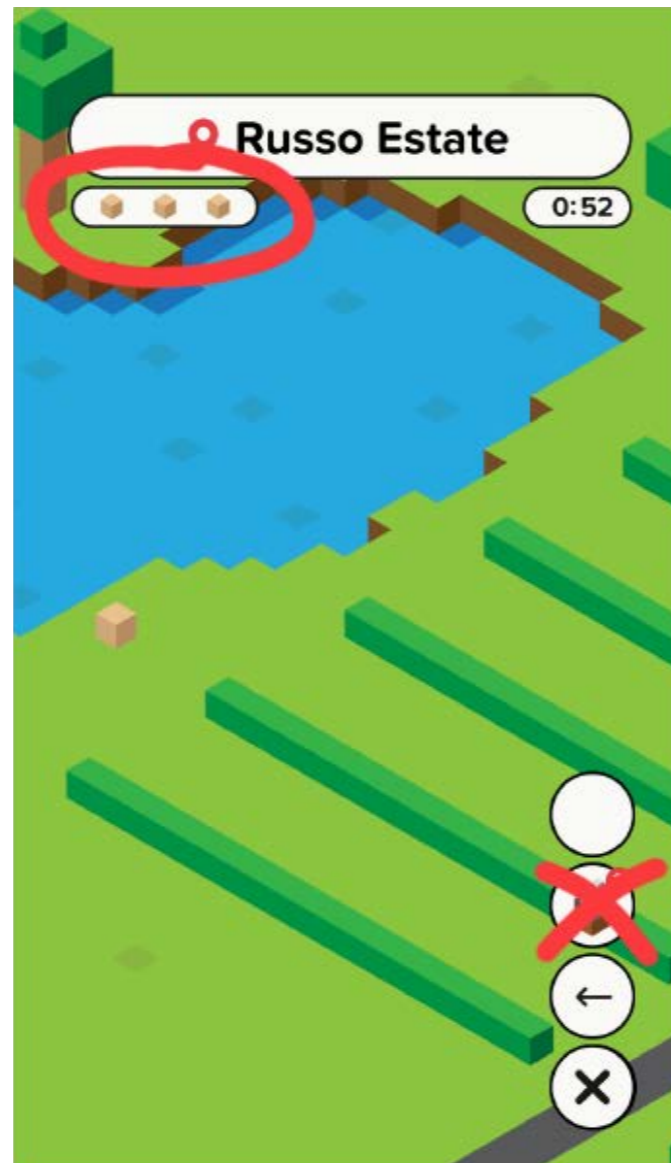
Instructions Overlay:
The implementation of a "How to Play" screen attempts to address any confusion around what users are expected to do at each location.

The "How to Play" screen has been intentionally placed before starting any challenges, this is to ensure that users cannot circumvent the instructions, unintentionally creating confusion for themselves.

Design refinements

Additional Storytelling: In an attempt to add in additional storytelling elements, a new fictional character has been added to the app. The Librarian is the character who gives players their mission at the start of the game.

Additionally, narrative elements have been interwoven into the "How to Play" screens present at the start of each challenge.

📍 Melton Library
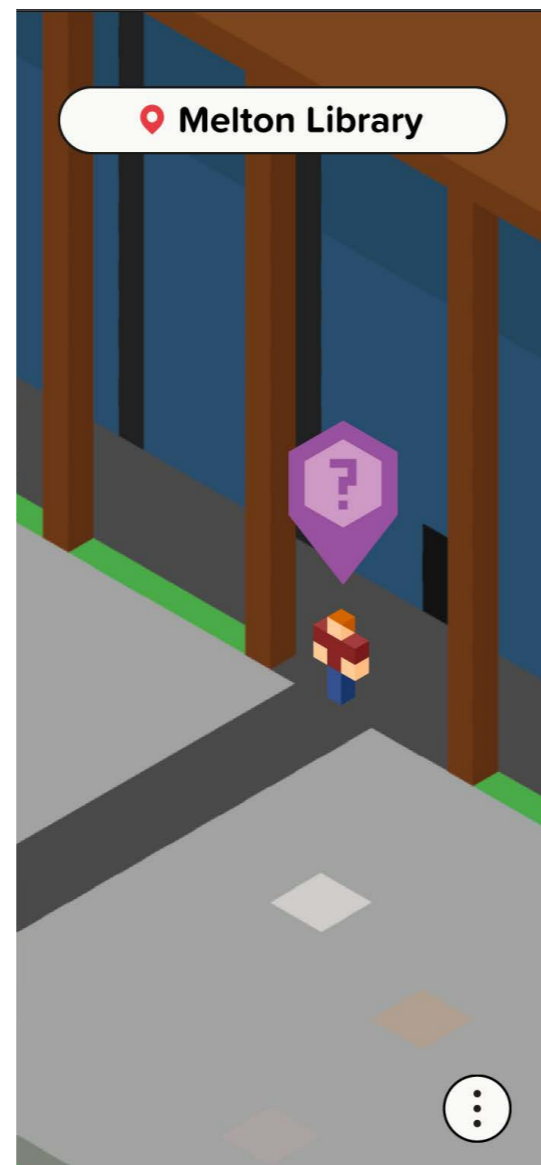
The Librarian

"Well G'day there mate! I'm afraid the Library's closed today as we're incredibly understaffed. I'm terribly sorry mate.

I'll tell ya what though, maybe we can help each other... If you help me **collect some overdue library books** that are scattered around the area, I'll be able to reopen the Library! I'll even chuck in **something extra if you collect them all** to sweeten the deal! **There's 20 books in total to collect.**

I appreciate your help mate, maybe look around for anything that could help you with your adventure.

Head back to the "World Map" when you're ready to begin.

How To Play:

1. Compete against time
A personal trainer refuses to return his book unless you can prove your worth. Complete a lap in record time.

2. Waypoints
Pass through waypoints to track your progress. Miss a waypoint and it's game over!

3. Complete the lap
Pass through all the waypoints before the timer runs out to collect your prize.

Lets Go!!!

Design refinements

Iconography Redesign:
New icons were developed to enhance the interface's clarity, focusing on simple, intuitive designs that made navigation more straightforward. Each icon was designed to be uniquely recognizable, minimizing guesswork and helping users find what they needed quickly. This refinement ensured a smoother, more accessible user experience.

World Map
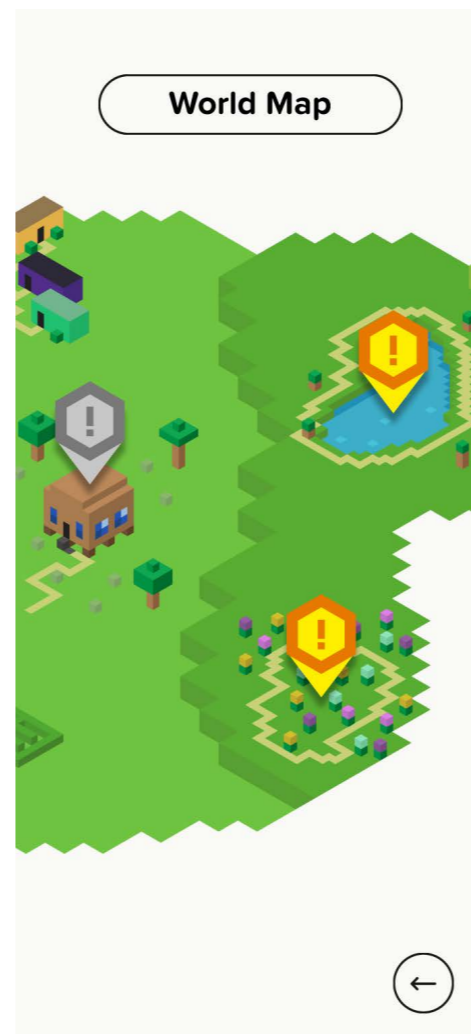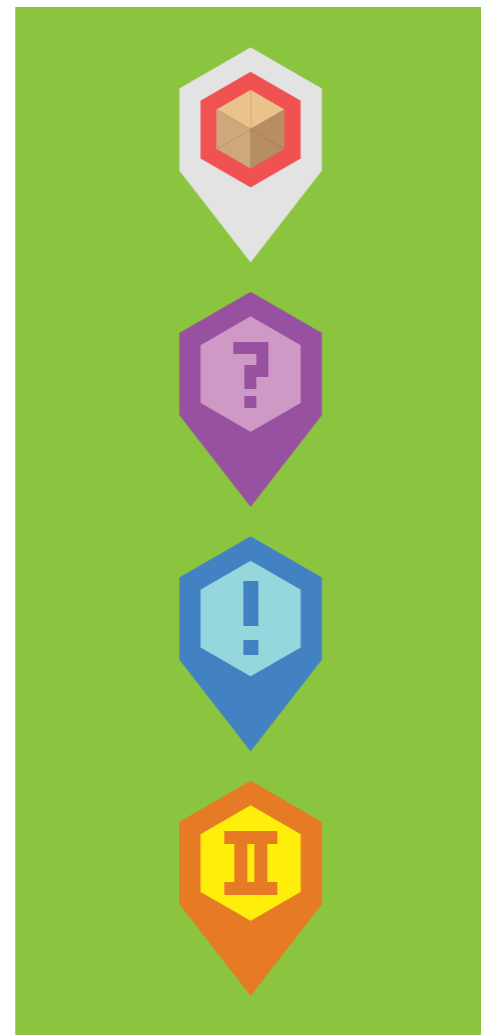
Kebab Menu Changes:
The kebab menu has received subtle overhaul, featuring a mute button for the music, a help button for active challenges and a back button that returns the user to the map.
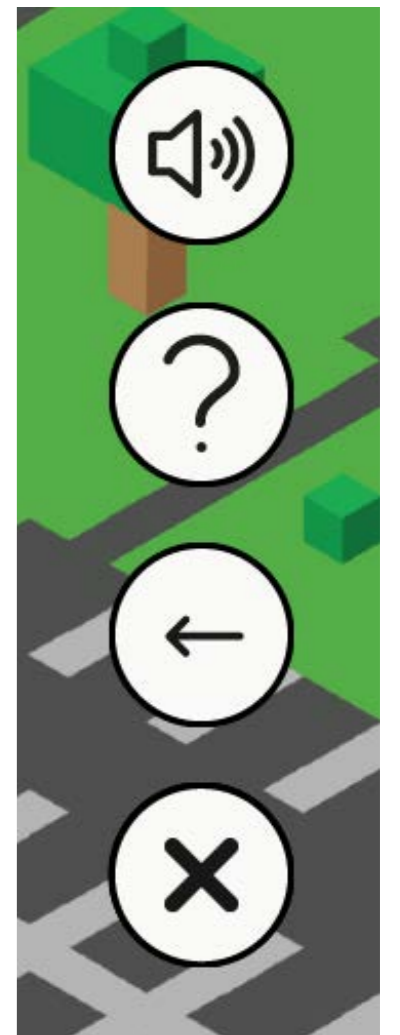
Design refinements

Additional Challenges:
Another key area of improvement that users suggested, was the addition of multiple challenges at each location.

Adding extra challenges at each location enhances the overall enjoyment by adding more variety in the tasks users have available to them.

Hidden rewards were also scattered around the maps to promote curiosity.
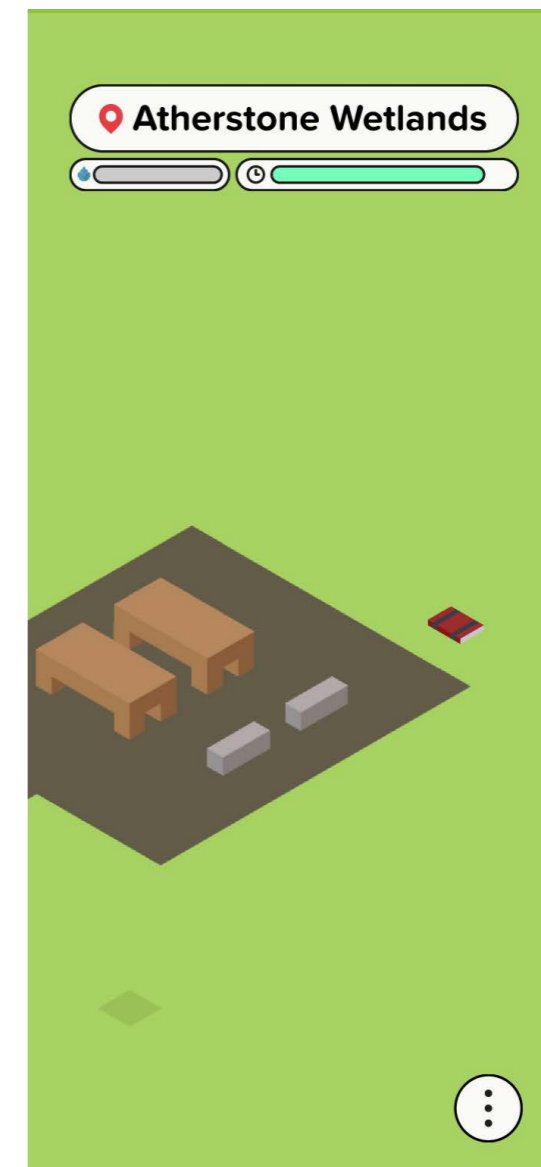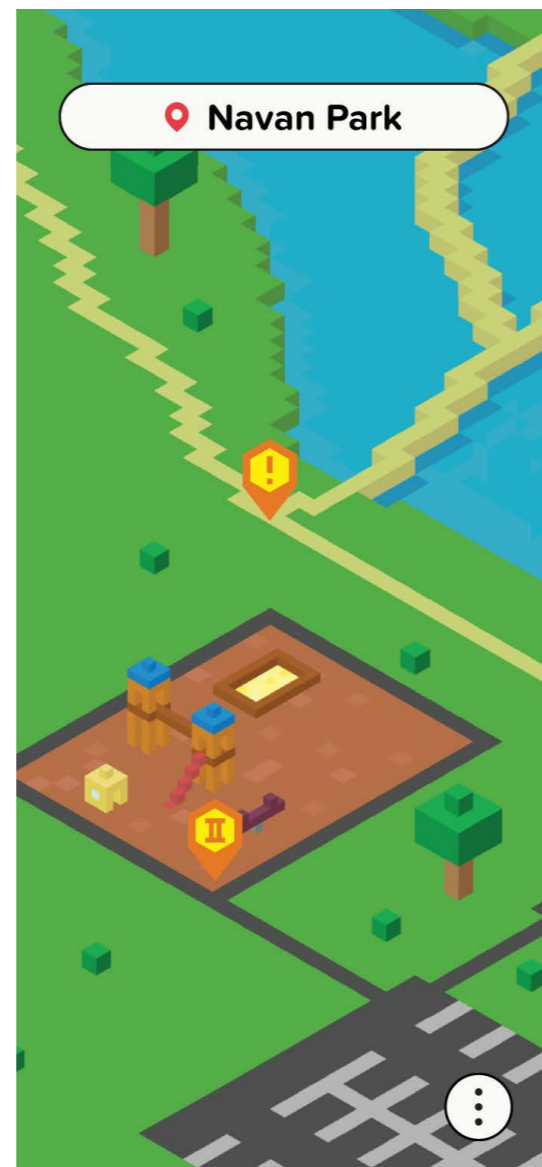
Design refinements

Difficulty Fine Tuning:
Another point of feedback I had received was that the challenges were just too difficult. This is not a 'one-solution' type of fix.

In order to address the issue of challenges being too difficult, I separated some challenges into two components, an easy mode, and a bonus round. The easy mode would be designed in a way that user would still be able to complete the challenge without any difficulty (still earning a basic prize), but the bonus round would be an 'extra-challenging rendition' of the easy mode.

In short, users would be given the chance to repeat a challenge at a higher difficulty for an additional reward.

This was accomplished with a variable timer that would change based on how users performed on the easy mode.

Bonus Round:

Compete against time
The Trainer is mightily impressed with your abilities and has challenged you to a bonus round.

In this bonus challenge, you will have significantly less time to complete the challenge but the rewards will be greater.

Challenge Accepted

No Thanks
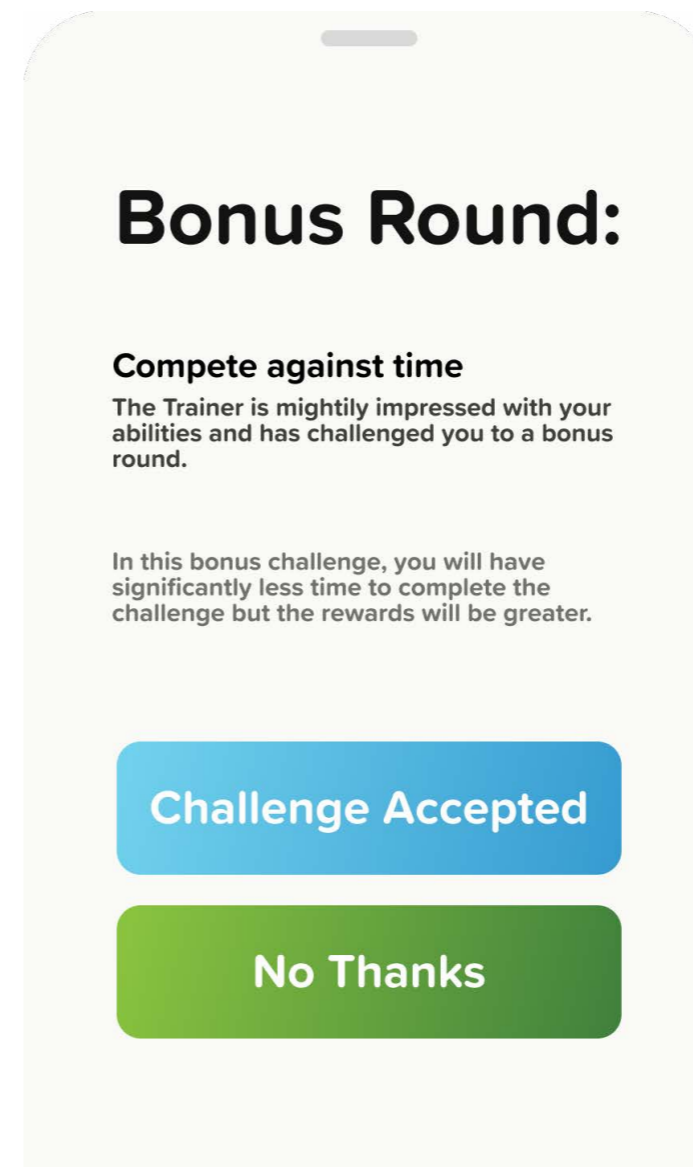
Design refinements

Lazy Challenges:
The final point of feedback that needed to be addressed was the implementation of challenges that did not rely so heavily on walking around.

I addressed this by creating challenges that once activated, could be completed without moving around. One such challenge is featured at Werribee Gorge and simply requires users to tap a button as fast as they can for a short time to "feed the ducks."

Adding these challenges not only make my app more accessible but also creates more variety, addressing the design goal of having unique interactions.

Focus Group: The Sequel

Focus Group

A second focus group was conducted with the same participants as the first one. This time as opposed to exploring the motivations and preferences of my target audience, I'd be exploring whether the changes and refinements I've made to my app addressed the issues highlighted by the field testing.

Focus Group Findings

All participants found the app engaging and fun, particularly enjoying the competitive elements like timed challenges and the bonus rounds.

Mexicana and Pepperoni appreciated the competitive aspects, though Mexicana suggested adding more surprises or dynamic elements to hold attention.

Hawaiian enjoyed the narrative-driven bonus challenges, especially in more scenic locations like the Botanical Gardens and Navan Park.

Participants appreciated the variety in challenge difficulty but recommended a more gradual increase for consistency (Hawaiian & Pepperoni).

Both Hawaiian and Pepperoni noted that difficulty often shifted abruptly, which occasionally felt jarring.

The high-score-based and self-paced challenges, like the "feed the ducks" minigame, were particularly enjoyable and allowed participants to set their own goals. However, some tasks, like the "egg timer" and "waypoints" challenge, were seen as too challenging or inconsistently paced (All participants).

There was a preference for an option to set difficulty levels at the start of the app to better cater to different player abilities (Pepperoni).

Participants felt that the added storyline and narrative context improved the experience and made the gameplay more meaningful, though they suggested introducing more characters in different locations to reinforce the app's world and mission (All participants).

The addition of instructions significantly improved user understanding and helped make the app feel more polished and cohesive (Mexicana).

Design Recommendations

Although most issues were resolved within the design refinement stage, based on focus group feedback, several key design recommendations have emerged to improve enjoyment and usability:

Firstly, refining the challenge progression with a more **gradual difficulty increase** would keep users consistently challenged without abrupt spikes in complexity (All participants).

Introducing **difficulty level options at the beginning** could also help tailor the experience to different player preferences (this would not be too difficult to implement given a working variable timer is already present within the prototype) (Pepperoni).

Expanding the narrative by introducing more character interactions across locations would enhance the overall narrative experience (All participants).

Refine the instructions given on the "How to Play" screen as some users still found difficulty trying to complete the challenges (Hawaiian).

Final Thoughts

Overall this unit and this assignment have been an extremely challenging, yet equally rewarding experience that has resulted in a prototype I am proud to showcase in my portfolio, and to use on my GradX poster. Several aspects of the assignment went better than anticipated, especially learning to use Figma's variable to create a truly unique prototype. I'm also quite pleased with how it came out in terms of visual design, all my participants were pleased with the aesthetic of the app.

However, it wasn't all sunshine and rainbows, there were clear areas for improvement. While the challenges I created for my prototype were engaging, there is still an inconsistency in the overall difficulty between them; ensuring a consistent increase in difficulty between challenges would enhance the experience further.

Managing my time this semester (particularly with this assignment) proved to be more challneging than expected, as I often hyperfocused on aspects that, in retrospect, probably weren't all that important in the development process.

Another aspect of the prototype I could have improved is the link to the chosen theme. The original intention was to change people's perspective of Melton, showing them that it's not as bad as they'd think.

In terms of methodology, this assignment's use of focus groups added depth and variety to the feedback, yielding richer insights than semi-structured interviews I have conducted in the past and in other units. Moderating and observing the focus groups alone, however, was demanding; having an assistant would have made gathering insights much easier and perhaps more balanced (by that I mean that I spent most of my time keeping the conversations on track).

Lastly, Figma proved invaluable as a prototyping tool compared to alternatives like Adobe XD, which feels comparatively limited. Figma's variables and customization options offered me far greater flexibility to test and refine the interactive components of the prototype, making it ideal for a project of this scale and complexity. Overall, this assignment provided a solid foundation in design, user engagement, and iterative development, and has equipped me with a range of skills and insights for future projects.

Cheers.

References

Nielsen, J. (2012) "The Most Important Usability Activity" *Norman Nielsen Group.* https://www.nngroup.com/articles/the-most-important-usability-activity/

McDonough, I, Haber, S, Bischof, G, Park, D, 2015. "*The Synapse Project: Engagement in Mentally Challenging Activities Enhances Neural Efficiency.*" Restorative Neurology and Neuroscience 33 (6): 865–82. https://doi.org/10.3233/RNN-150533.

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Carey, A, 2023, 'The Melbourne regions set to grow up to 141 per cent as population booms', The Age

Appendix

Appendix

Participants were anonymised again, using the same pizza flavours as identifiers.
Hawaiian (H)
Pepperoni (P)
Mexicana (M)

On an additional note, this focus group session ran for longer but not as much was talked about, as some participants would frequently get sidetracked. I have cut out all the unnecessary parts from the transcription.

Intro:
Alright folks I appreciate you guys coming out; let's get straight into it, I'm excited to hear your thoughts on the latest prototype. Let's start with a big one—did you have fun with the app? And, were there any points where your excitement waned? Margarita, why don't you kick us off?

(M) Oh, absolutely! I love a good challenge, and the app definitely kept me on my toes! The bonus round part was fun, and it got me right into the competitive zone. But... I gotta be honest, there were a few spots where I kind of drifted off. Like, I'd be walking round the [Botanical] Garden collecting pages or something, and bam—suddenly I'm distracted, looking at a duck or something.

I think if there were more... I don't know, surprises or twists, it would keep people like me engaged for longer.

Interesting! So a bit more excitement to hold attention. Pepperoni, how about you?
(P) I mean yeah, at first I was like, oh we're going for a walk around the lake but the timer definitely made things interesting, and then yeah like what (M) said, the bonus round made things more challenging, I don't know I liked the walk in the botanical gardens haha. But yeah, me and (M) were often turning it into a competition.

(H) Yeah I thought it was fun too, I liked that you added bonus challenges at some of the locations, like the one at Navan Park that doesn't require doing laps around a lake haha.

(P) Oh yeah that's a nice touch yeah, 'cause like, I can go do some laps around the lake but then sit down at the playground and just relax and play the game on my phone.

So during the testing you guys suggested adding additional challenges to some of the locations, do you feel that the way I went about it is sufficient or is there further refinement needed?

(M) I mean, I'm happy with it, yeah, like, having multiple challenges at a location doesn't mean it has to be multiple missions. I can't remember which place it was but one of them had a hidden book at the top of the map that would only be found if people went off to explore, and I feel that, that sort of thing is also sufficient-

(H) So long as it's hidden well, some of them were a little too easy to find.

(P) Yeah I can agree with that.

So you guys reckon the books needed to be hidden a little better?

(P) I mean not all of them.

(H) yeah some were fine.

Alright thanks. So when we did the field test there was another area you folks said there was room for improvement- you said that adding some basic instructions would improve the feel of the game. Can you share your thoughts on how the app feels now, with instructions, in comparison to how it feels without?

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(M) It definitely feels like more of a finished product, not to sound rude or anything but before when you didn't have any instructions it just felt cheap and unfinished...

(M) ...you know me I like a challenge but not adding instructions felt half-assed. But you've fixed that.

(H) I even like that there's like a mini story in each one too!

(P) Yes haha, I loved that-

(M) Yeah 100 percent, it gave more meaning to why we were there, like, it's not just completing random puzzles without context, it makes sense now, like "oh the personal trainer agreed to give the book back if you do a lap" just makes sense.

(H) Yeah, yeah I think weaving a story into each location- each set of instructions definitely made it more engaging, and even though technically it was still just a bunch of scrolling and tapping, it just felt more interesting.

(P) Yeah I still think though that you could add more at each location to make it feel more interesting.

Could you please elaborate on that for me?

(P) Well, you had that character at the library who told us what the aim of the game was, but then he was the only character we encountered, like, if we were able to meet the chef or the trainer or the mechanic it would make more sense

(H) Yeah I agree, adding the characters into the locations would've been nice.

(M) yeah.

Alright, great feedback, thanks guys. So, on the topic of motivation - did the app manage to keep you interested?

(H) I think I stayed pretty motivated throughout. The narrative aspect of the locations was really interesting. I was curious as to what weird little scenario was coming next, and the way it was designed in the Botanical Garden was beautiful! I think I got a bit more focused on the journey itself rather than just collecting the pages.

(M) I was more about beating the challenges! But I can see how the story could add a layer of interest. Maybe if it was a bit more in-your-face—like, clear reminders of the stakes—it'd grab my attention more.

(P) Yeah, I'm with (M) there. The story was nice, but when I was focused, it was mostly about seeing how quickly I could finish each mini-game. I think a stronger narrative could give it more purpose for people like me.

Alright, some good responses here, thank you everyone. So just looking at my list- another thing you guys talked about was the difficulty of the challenges, how did you guys find that this time around?

(P) Well, the challenges definitely kept me going, but I think some were a bit hit or miss. Like, in Werribee Gorge, I was all geared up for a good mental workout, but I found the challenge there was... almost too easy? Then I'd get to another location and suddenly be totally stumped. A little more balance might help people feel consistently challenged without feeling overwhelmed.

(M) Oh, I loved the tough ones! Some of those challenges were just the right level of devious!

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The harder the better, honestly, because it pushed me to figure it out. But I agree with (P) on one thing: I'd be breezing through in one spot, and then at the next one, it was like hitting a brick wall. I had to slow down and really focus, which I don't always have patience for. So maybe a more consistent challenge curve could be helpful. But if we're talking difficulty, bring it on!

(H) I thought the mix was nice; it allowed for different types of engagement. I liked that there were easier tasks to build confidence, but also a few tougher ones that really got me thinking. It's true, though, that in some places, the jump from easy to hard was abrupt. Maybe a gradual increase in difficulty would help, especially for users who prefer a steady learning curve.

Interesting, and were there any challenges in particular that stood out as either too challenging or too easy?

(M) The one at the Botanical Gardens was a little too easy-

(P) Yeah but that was the point I think?

Yeah it was

(M) Oh nevermind then haha.

(H) I don't have one that stood out as too easy or too hard but I really liked the one where we had to water the flowers, I liked how as you watered the flowers they changed to like a healthier state.

(P) Yeah that was a nice little... thing?

(M) Feature?

(P) Sure.

(M) The one where we feed the ducks was cool, it was a really simple concept but I dunno, it was just fun, tapping to beat my score.

(H) Yeah I like that it was about beating my own highscore as opposed to a set one, I thought that was nice.

(M) I think the timer on the egg one was maybe a little too short, especially if we're supposed to actually be walking around collecting eggs.

Well the timer would be longer if we were actually walking around collecting eggs.

(M) Right, but like even for the sake of testing I mean, it was too quick, it felt rigged.

(P) I don't know that it felt rigged but I do think it was a little too fast.

(H) I'll add that the timer on the laps one (Navan Park) was a little inconsistent, so like, for the first lap it was fine but then the second one-

(P) Yeah!

(H) The second one was way too fast!

So some fine tuning between difficulties would make it more enjoyable?

(H) Yeah, even if you make the first lap a little more challenging to raise the expectations of the second one. Or I guess the other way round works too.

(M) I feel like making the second one a little easier would be better.

(P) Okay but hear me out, what if at the start of the game- like the start, you can pick like

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easy or hard, and then the challenges just react to that.

(M) yeah like in Destiny, pick the difficulty before you start kinda thing.

Alright, That's something I can look into.

(H) I've just got one more note to add on the topic of challenges, the one with the pink and yellow circles, was a little unclear, like even with the instructions.

So it sounds like fine-tuning the difficulty and clarity of objectives could make each challenge more enjoyable. Final question on this topic: overall, did the difficulty of the challenges make the experience more or less enjoyable?

(M) More enjoyable, for sure! I mean, the tougher ones were the best part—they made it feel like a real game. Just needs a little more balance.

(P) Agreed. I was here for the challenge, but I think a smoother transition between difficulty levels would make it less frustrating and keep people from feeling like they've hit a dead end.

(H) I loved it, honestly! The challenges were creative, and I felt that the tougher ones really added to the sense of accomplishment. I just think with a bit more refinement, the flow between them could be even better.

Okay so one last thing before we conclude, now last time- when we did the field testing, you guys said the app felt a little bit clunky, especially in terms of the timer and the bucket system, do you guys feel like that's still the case or have the changes I've made met the mark?

(M) Me personally, I have no issues, I think it's better than last time, but didn't you say it was unfinished?

Yeah, but still.

(M) Well yeah, nah it's better than what it was. The whole button-bucket thing was annoying, coz it also stopped the timer.

(P) On the topic of the timer, I think I liked being able to see the actual numbers on the timer, like it was good to know exactly how long I had, but at the same time, I just focused on the colour of the timer, so like,

once it went red, I knew that I was about to run out of time.

(H) Yeah kind of just building on top of what P said, having the numbers is nice to know exactly how long we have but at the same time I think the bar works better with the overall aesthetic of the app.

Alright thanks

(H) The bar on the other side of the timer was also a nice addition

(M) The one that tells you how many eggs or water you had?

(H) Yeah

(M) Yeah that was nice, and it fit in from a visuals perspective.

(P) I liked the raindrop haha.

Alright, well that's all we have time for now, thank you guys for you help, and for your feedback, it's much appreciated.

Appendix

Minigames:

- Collect the Eggs:
Users need to collect 'eggs' that are scattered around the location, and bring them back to a 'nest', the catch is that the activity must be completed in a certain amount of time, and the users are limited in how many eggs they can carry at once.

- Pages:
Several pages have been scattered around a location, users have to explore to find them all, for every 4 pages collected, users complete a book.

- Putting out fires:
Tapping as many icons as possible in a short time and getting points for each one.

- Feeding the ducks:
Users must repeatedly tap a button as fast as they can to build up a score. Once the timer runs out, users will be given the choice to try and beat their score for an additional prize.

- King of The Hill:
Users are required to stand in a specific location and tap incoming projectiles to defend the location, if the projectiles make it to the user's position on the screen, points are lost.

- Waypoints:
Users have to complete a lap around a specific location within a set time. Once the user completes the lap they are given the opportunity to complete the lap again in a quicker time for an additional prize.

- Lanterns:
Users must stand in a specific location along a path for a certain amount of time to build up a charge that allows them to navigate a specific path, standing next to a lantern for too long however will cause it to explode.

- Watering the flowers:
Users must tap-and-hold on a water source to fill a bucket, they must then carry the bucket to a flower and tap-and-hold to water it.