Design Thinking Project (Group 1)

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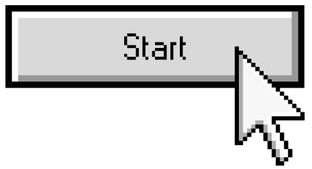
Technology and Information System (SECP1513)

DESIGN THINKING PROJECT

GROUP 1



Team Members

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LILY AMIRA BATRISYA BINTI SHAHRUL SHAM (A25CS0082)

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Introduction

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Problem statement

Children aged 5–9 years old are often found inattentive in the class, and they subsequently lag in learning basic skills like reading, writing, and arithmetic compared to other children.

There are parents out there, who do not have enough money to send their kids to special schools to help their kids. Some teachers also struggles to keep their students pay attention in class.

Introduction

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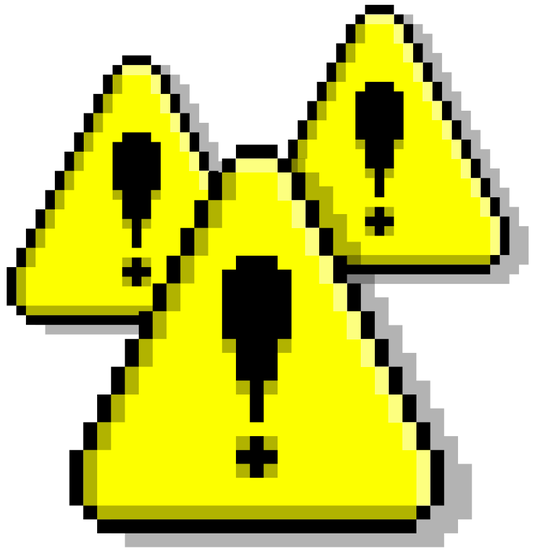

How do we solve this ????????

Introduction

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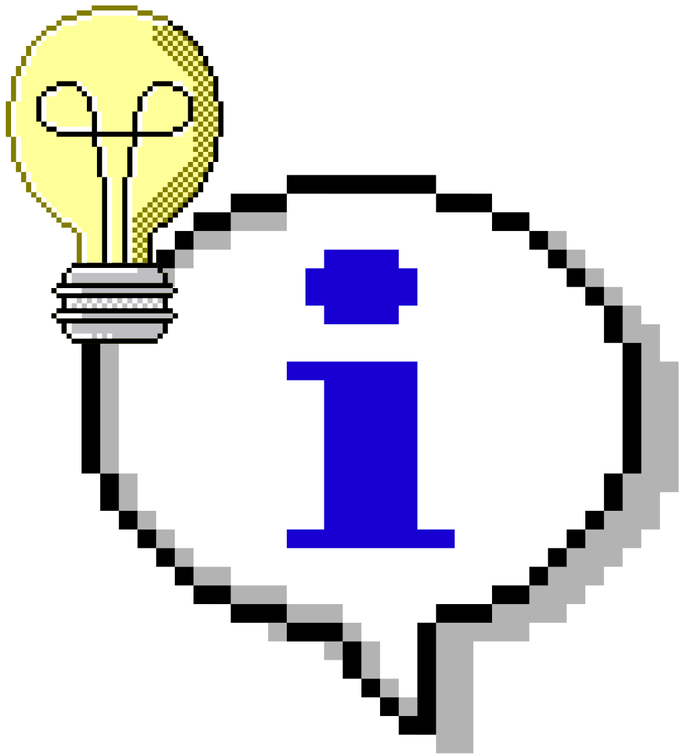

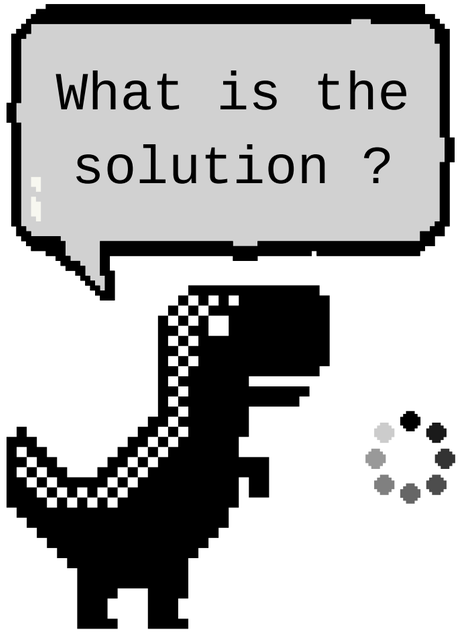

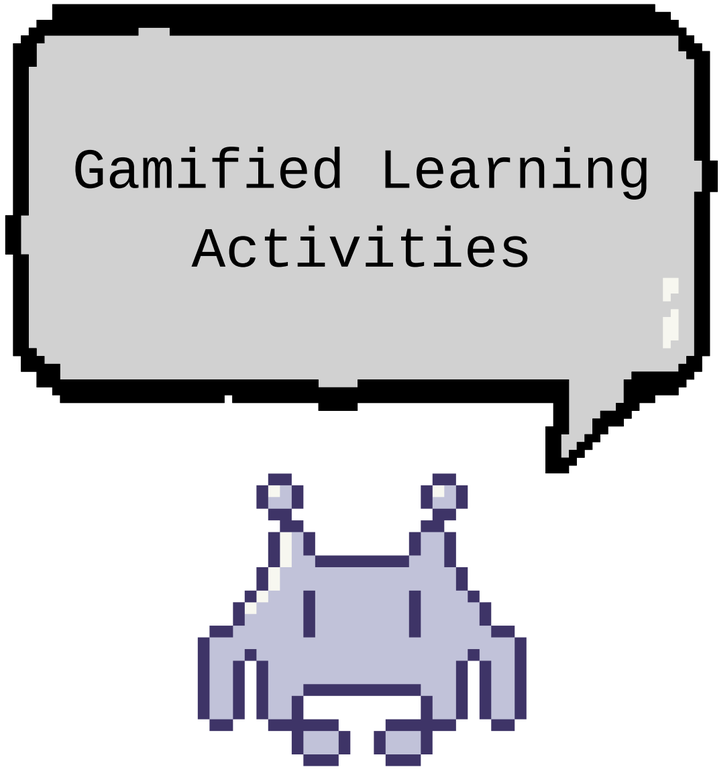

Introduction

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Ideas Generated:

- Alphabet tracing mini games to improve writing ability
- Games involving pronunciation to aid reading and learning phonics
- Games of basic mathematics based on addition and subtraction
- Use reward systems such as points or stars to engage learners

Evidence (Articles)

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https://readingeggs.com.au/news/2022/11/14/top-education-app-award/

> *We launched ABC Reading Eggs almost 12 years back, and since then, we have been able to make a huge difference in the lives of millions of kids as well as families".*

One of the other contributing factors to the success of ABC Reading Eggs is the support features available for teachers in the classroom. Currently used by **90,0000 teachers in over 12,000 schools worldwide**, ABC Reading Eggs gives teachers the ability to quickly assess their students and provides them with the option to give students individualised learning paths. This means students can work at different reading levels. The program is also available in three accents, American, Australian and British, ensuring students can listen to and pronounce words in a way that's appropriate for their geographic location.

ABC Reading Eggs

An educational website that already exists in market.

It shows that this kind of website are widely used by ADHD children.

Evidence (Articles)

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https://www.frontiersin.org/journals/education/articles/10.3389/feduc.2025.1668260/full

Methods: Eighty children aged 6–12 years with clinically diagnosed ADHD were randomly assigned to a gamified intervention group (n = 40) or a control group (n = 40). Both groups completed identical learning tasks (calculation, text comprehension, phonological exercises) over 8 weeks; only the intervention group received gamification elements (immediate feedback, rewards, level-based challenges). Baseline and post-intervention assessments included visual and auditory reaction time tests, a continuous performance test, and standardized academic tests in reading, writing, and mathematics. A follow-up assessment was scheduled 8 weeks after training.

Results: After 8 weeks, the gamified group showed greater improvements than the control group in visual and auditory reaction times and sustained attention (all $p < 0.01$), as well as in reading, writing, and mathematics scores. Training time was comparable between groups.

Effectiveness of a gamified educational application on attention and academic performance in children with ADHD: an 8-week randomized controlled trial

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Evidence (Google Form)

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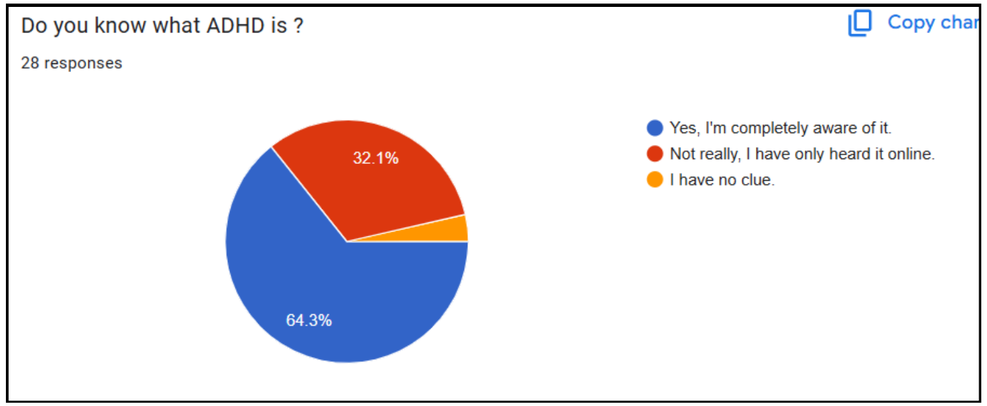

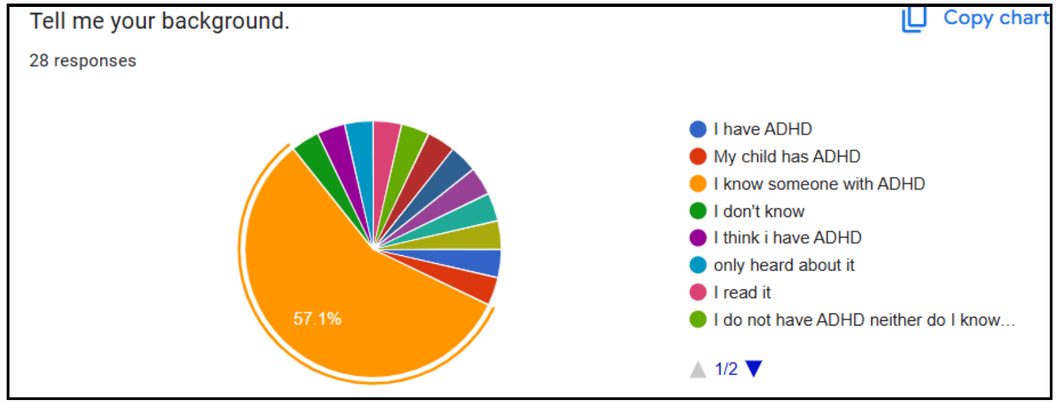

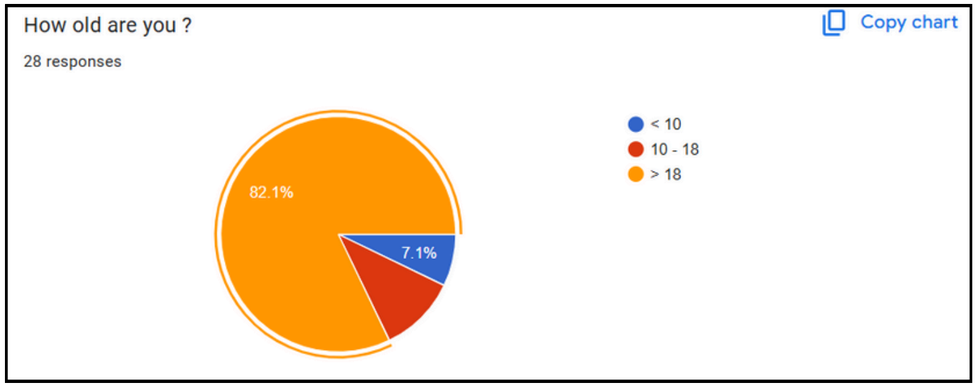

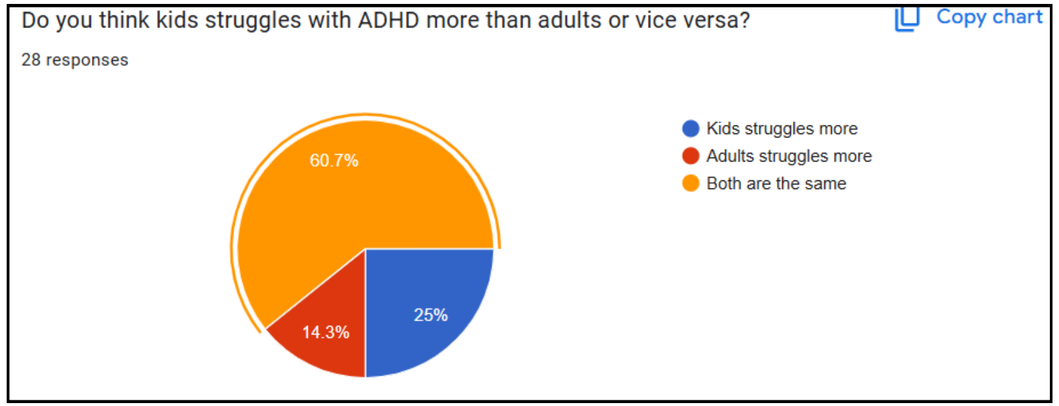

https://docs.google.com/forms/d/e/1FAIpQLSdEmaMfmKrO_5YbrCKShaEHtNl08tFRMWXumTOKHV8pOnTglQ/viewform

Evidence (Google Form)

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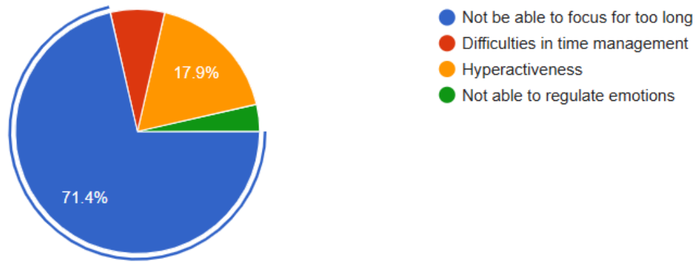
What is the main struggles for people with ADHD ?

Copy chart

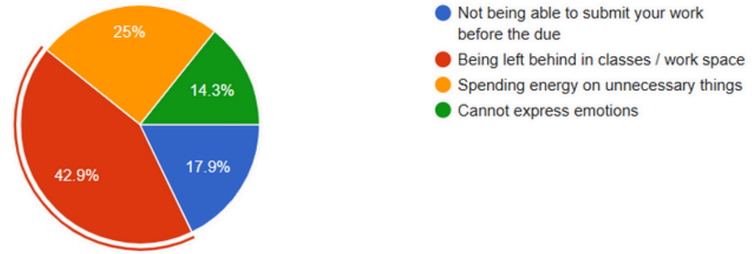
28 responses



What is your biggest concern about ADHD ?

Copy chart

28 responses



What's the biggest challenge in getting kids excited about learning?

28 responses

Then not wanting to learn
Kids with ADHD get bored quickly if learning feels repetitive or too long.
It's hard to know which kind of activity make them being attentive to one thing at a time.
hard to maintain their focus when they do something they not like
Creating new topics that kids will be interested in.
The biggest challenge in getting kids excited about learning is making learning feel meaningful and engaging in a world full of instant distractions
They can't focus on one thing at the time
worrying they might not understand what we trying to explain
To keep them focus

Do you think digital solutions could help people with ADHD ?

Copy chart

28 responses

Evidence (Google Form)

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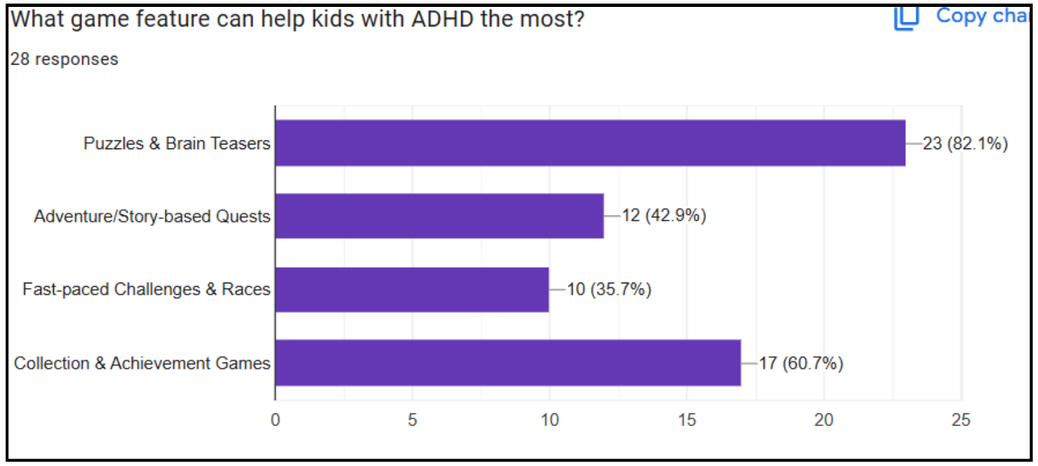

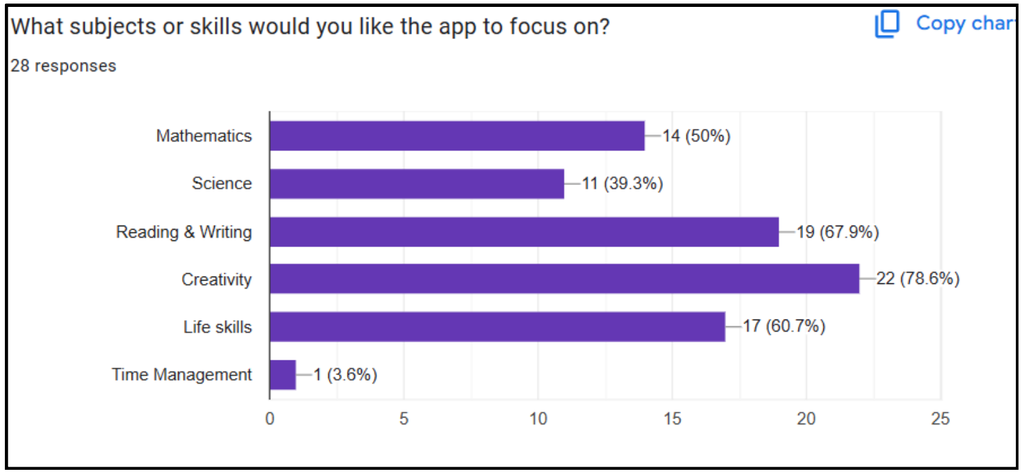

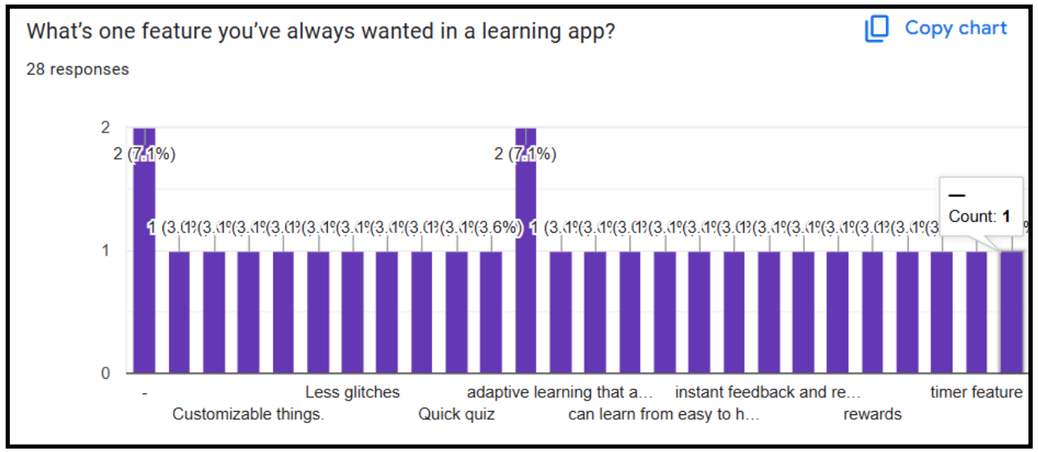

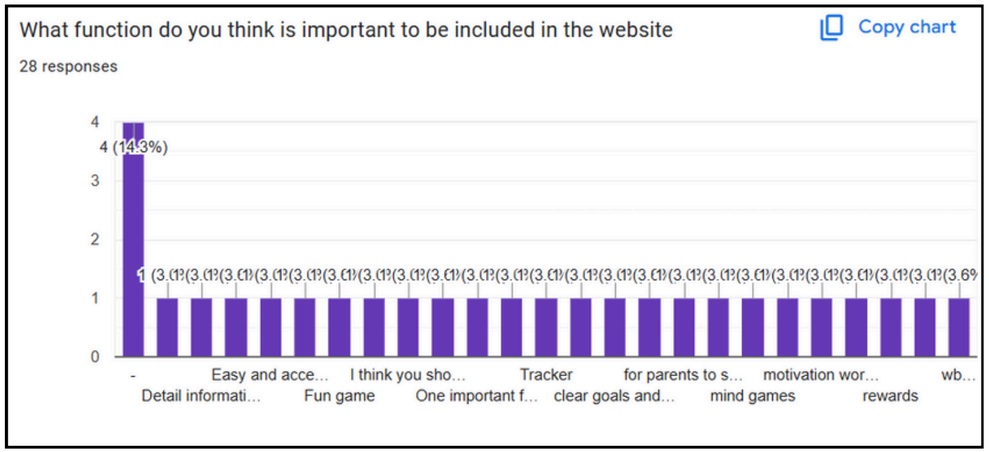

Evidence (Google Form)

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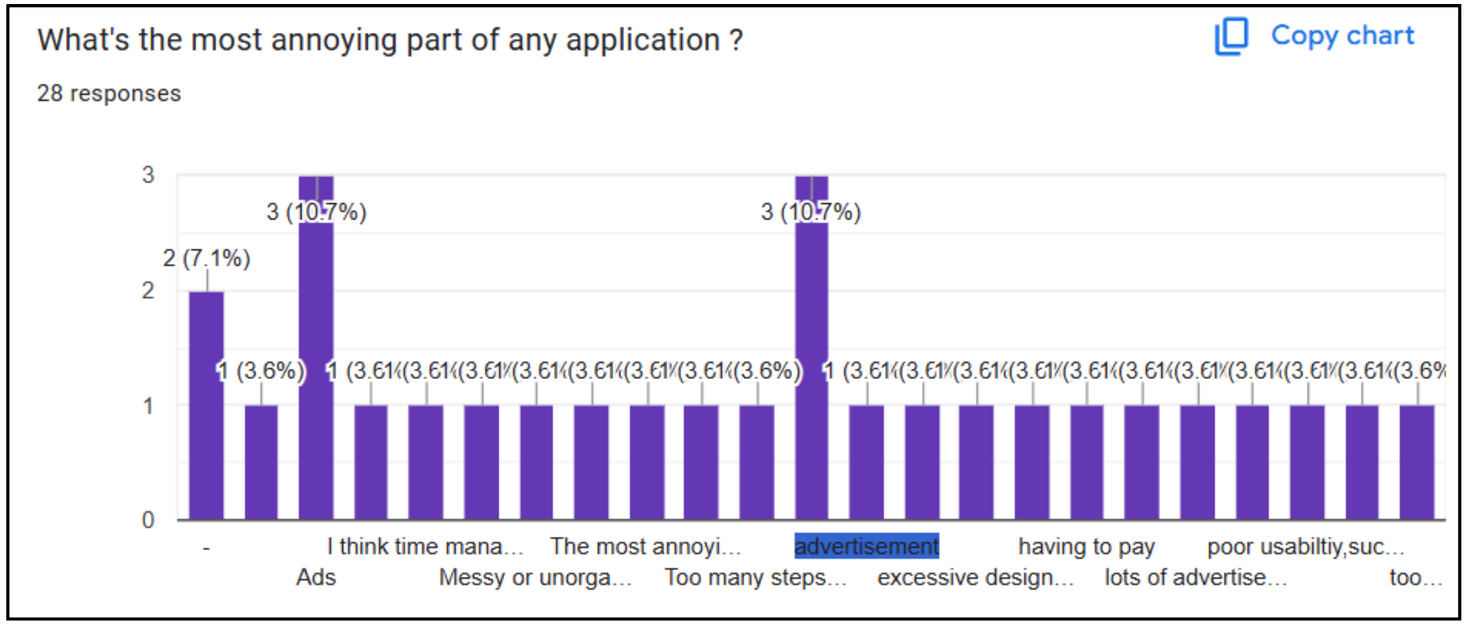

Prototype Explanation

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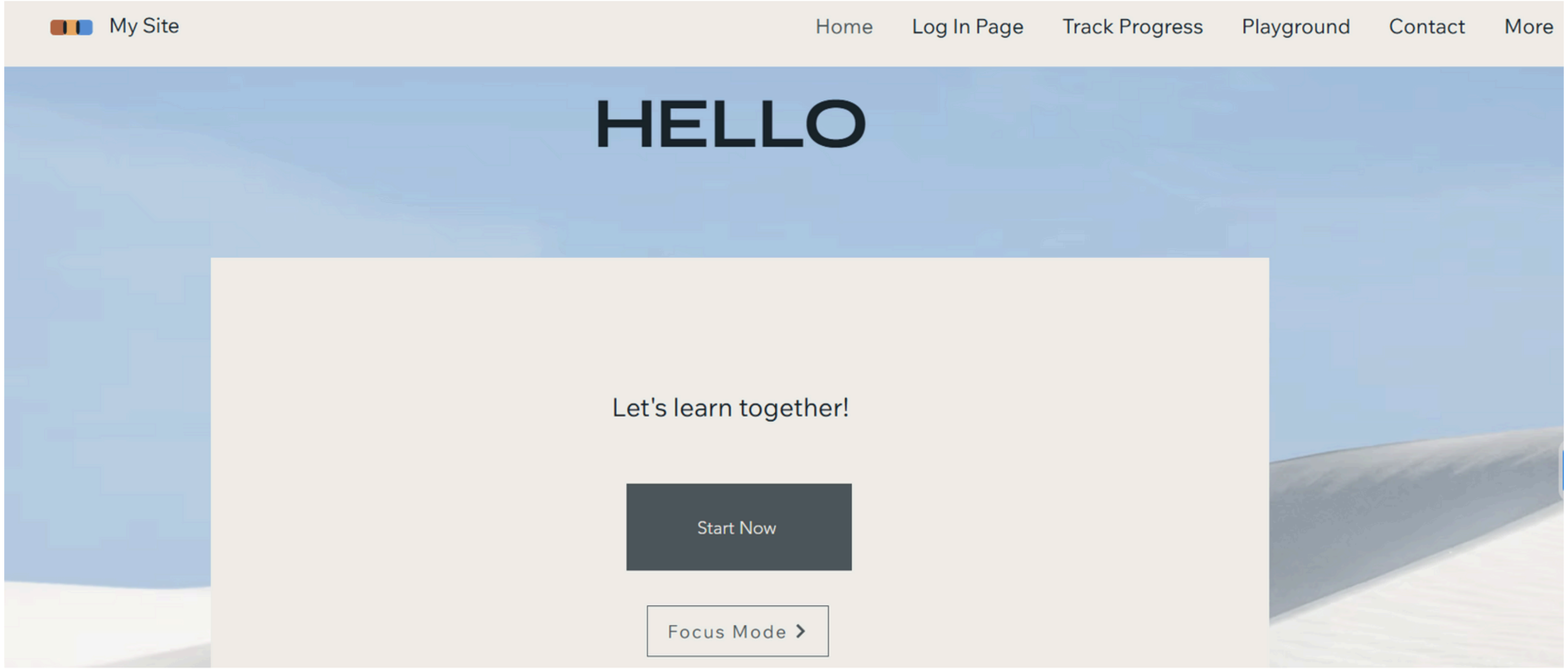
https://xinyanchen2006.wixsite.com/my-site-1



Conclusion

- **This project successfully applied the concept of design thinking to help children with ADHD use current technology.**
- **The empathy to testing phase helped the team understand the real needs of the users.**
- **Traditional learning methods were found to be less effective due to difficulty maintaining focus.**
- **The mini-game-based learning application increased focus and interest in learning.**
- **This application made it easier for parents, teachers and therapists to monitor progress.**