

Chapter in Book

Mobile Learning Apps: Crazy Scientist

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Abstract: Smartphones have become a necessity for many people throughout the world. With improved branding, customization and user interaction, mobile apps are leading the market. Therefore, mobile application development is important targets for various services in the market including in the tourism industry. The element of a smartphone application is the user interface (UI). UI design is the process designers use to build interfaces in software or computerized devices, focusing on looks or style. This study aims to describe the development of the Crazy Scientist application containing four games, from your body part to animals, plants, and everything in between, which for learning science concepts.

Keywords: user interface (UI), smartphone, mobile apps, science concepts.



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1. INTRODUCTION

Crazy Scientist teach your kids about the world of science around them. From your body part to animals, plants and everything in between. We can unlock new educational opportunities for your children. It also engage your kids in learning science concepts.

2. PROBLEM STATEMENT

- The existing science learning application lack many features.
- The available application is less interesting and less approach using games interactive.
- There are not many science learning applications available in market.

3. OBJECTIVES

- To engage kids in learning science concepts.
- Help kids to learn the material better.
- Explore fun kids' science experiments and projects.
- To extend the learning.

- Science worksheets, Games and Projects for preschool, kindergarten, 1st grade, 2nd grade, 3rd grade, 4th grade and 5th grade kids.
- Increase kid's interest in investigating, exploring, and experimenting with these science activities and mini-games.
- Kids will love science after playing this app because there are variety of different and interesting science topics.
- Perfect for science center or independent practice.

4. USEFULNESS

Crazy Scientist is one stop information centre prototype of the mobile application that provides kids to learn multiple science topics by including body parts, five senses, classifying foods by its food pyramid and recognising animals' sounds. Crazy Scientist is an enjoyable interactive app as it involves graphics and audio.

5. NOVELTY

Crazy Scientist will be the first science learning application that covered a few science topics in one app and helps to interact with audiovisual information via gamification and visualization.

6. USER INTERFACE

Crazy Scientist design theme are based on two main colours, purple and yellow. On our homepage (Figure. 1), we put a Smart Reader student in a lab coat as our character. The boy is mimicking a crazy face like what our apps is called. We also added a few other science elements such as beaker, plants, planets and microorganisms on the homepage.

There is a logo in a round shape and it will display to you the developer information (Figure 2). Once you press the 'Start' button, this will lead to Main Menu (Figure 3).

You will see our four mini games. First is Body Parts. The second is Animal Sounds. The third is Food Pyramid and lastly, My Five Senses. You are free to pick which games you want to play. On the top right, there is a Homepage button and an About Us button. This will show you little facts about information of Crazy Scientist apps.



Figure 1. Home page.



Figure 2. About Us (Developer).



Figure 3. Main Menu.

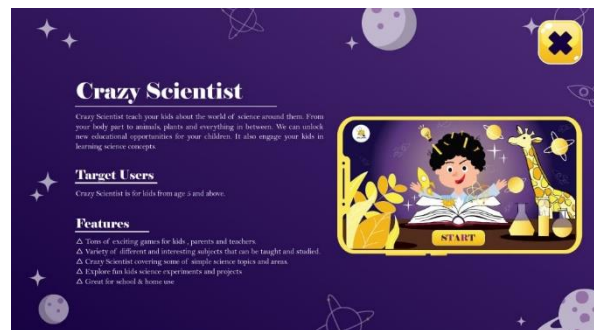


Figure 4. App Info.

Our first game (Figure 5), users need to fill in the blanks by dragging labels to its correct place. We used the same boy from Homepage as model.

For Animal games (Figure 6), there are four speaker icons but each have different sound. Users need to listen carefully to the outputs by clicking them and match the animals to their right sounds.

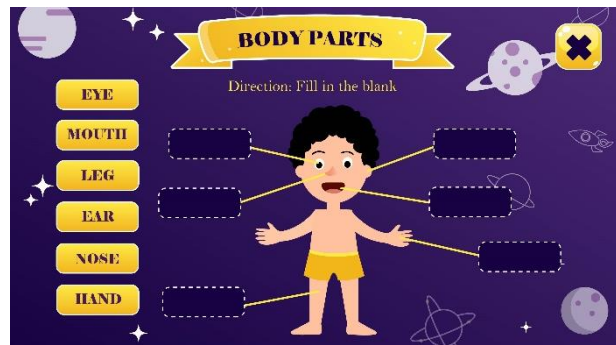


Figure 5. Game 1: Body Parts.



Figure 6. Game 2: Animal Sounds.

Food Pyramid (Figure 7) are played by simply dragging foods from the columns to food pyramid. Our fifth games, My Five Senses (Figure 8), the user just need to bring the five senses to the right labels.

In every of these games, you will receive encouragement words once you complete each task.

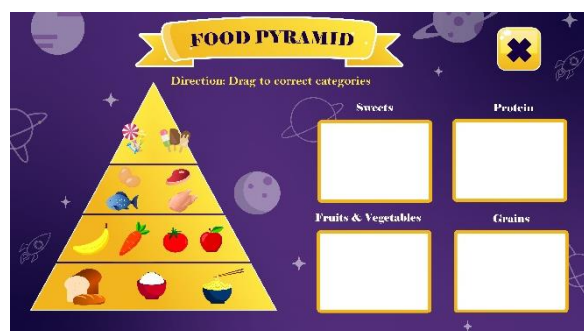


Figure 7. Game 3: Food Pyramid.

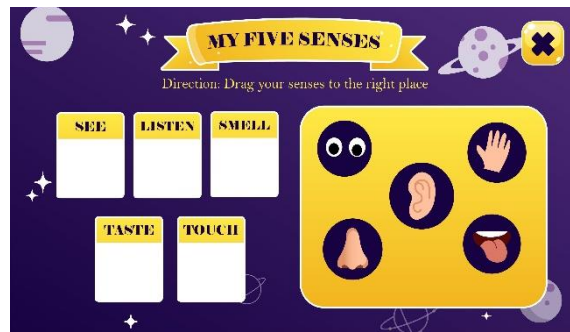


Figure 8. Game 4: My Five Senses.

7. IMPLEMENTATION

On early creation of this application, we did some research on various items. We collect as many data and problem statement from other application and find the right solutions. The designing process all done using Adobe Animate and Adobe Illustrator.

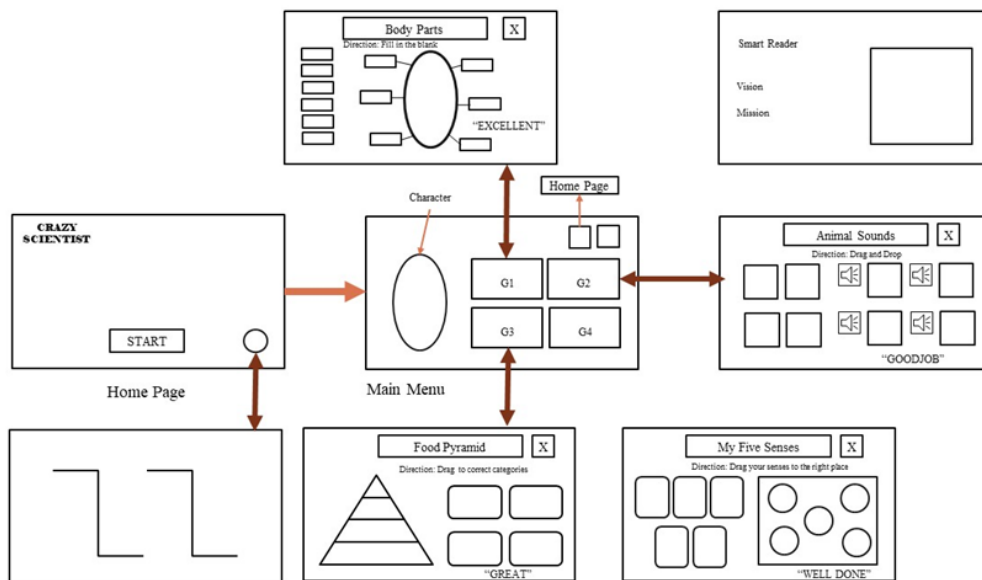


Figure 9. Storyboard of Crazy Scientist.

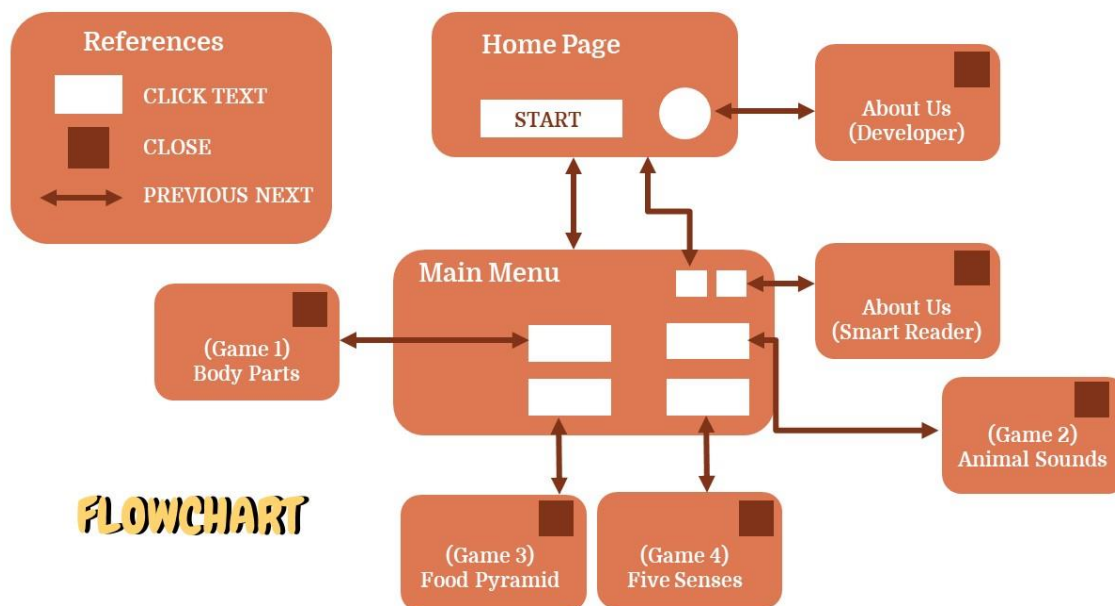


Figure 10. Flowchart of development process starting from homepage and ends with the four mini games.

8. COMMERCIALIZATION POTENTIAL

Crazy Scientist is very easy to access links and is very appealing to users as it is animated and has music that appeals to kindergarten children. It has various uses in creative learning in educating kindergarten children as well as training their minds to be ready in entering primary school to seek more knowledge. Crazy Scientist application has been registered under the intellectual property of which the registration number is LY2022J04697. Registration of intellectual property is important to protect the copyright of this app from being replicated.

9. CONCLUSION

We hope our apps will help kindergarten children to learn science subject in easy and fun way and wish their love to science grows as they learn more about it in the kindergarten.

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