Mobile App Design Overview

Sugar Mon, Added Sugar Scanner

SUMMARY

In spring 2019, I jumped into the design process as lead developer due to reorganization. This is a design challenge which is aimed at designing the scan history pages under existed mobile app. These are the three basic requirements. Firstly, this design should clearly display the list of the scanned food or beverage product to users. Secondly, it should help users to find products without added sugar quickly. Thirdly, design additional features such as search, share, and help for future development.
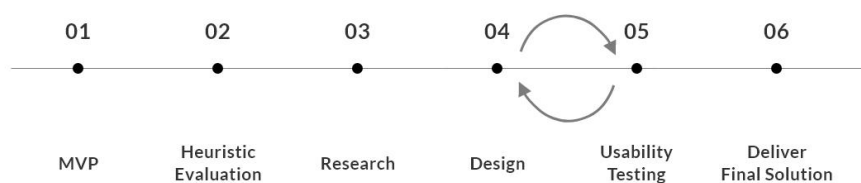
ROLE

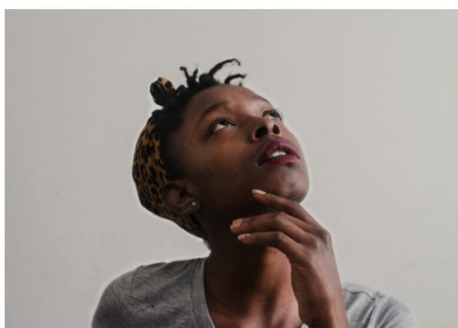Worked as UX Designer. Collaborated with user researchers, cross-functional team, and key stakeholders.

METHOD & TOOL

Method: Usability Testing, Critical User Journey, Persona, Digital Prototyping.
Tool: Adobe XD, Google Doc, Paper.

PROCESS OVERVIEW

01	02	03	04	05	06
MVP	Heuristic Evaluation	Research	Design	Usability Testing	Deliver Final Solution

Challenge

No scan history for users to go back and compare what they have found

As a gamified healthy food suggestion app, Sugar Mon displays the illustration and the name of added sugars as cards when user scans a food or beverage product. The app only keep the illustration and the sugar that user found before, displaying in the "sugar dex" as a collection of rewards to encourage user to find more added sugar and learn how different their name can be but they are all sugars.

Problem Statement

💡 **How do we create an engaging and easy-to-use scan history that help families choose healthier food or beverage products?**

MVP

Created a minimum viable product design

The first iteration is the design of the "FoodDex" (scan history). We aimed at very minimum specs so the dev team could develop fast within one sprint. I created the design as shown below, this way I delivered the design just in a few hours to developers to develop and release, and then I spent the time developers use to develop the FoodDex to conduct heuristic evaluation to get next version ready for their next sprint.
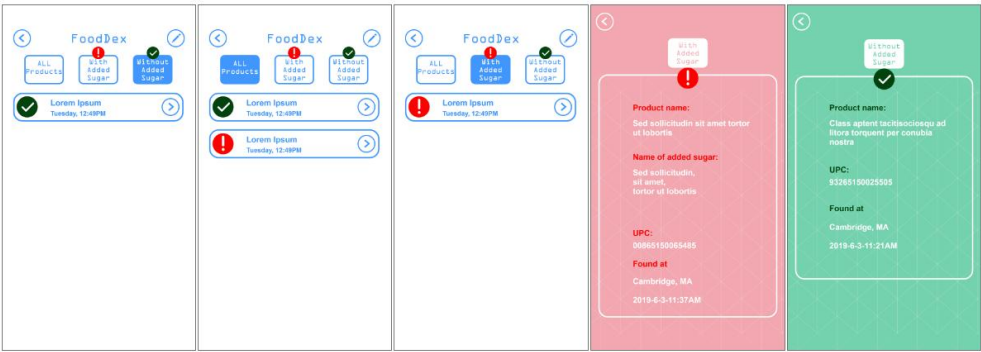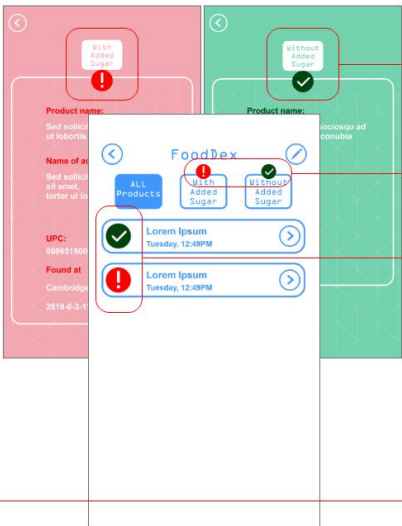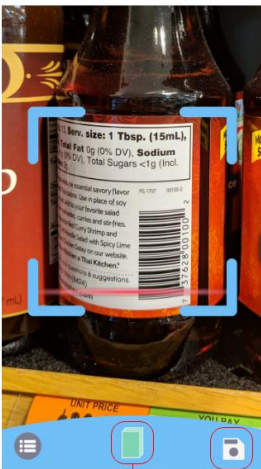
MVP Scan History Overview

Analysis

Sugar Mon Mobile App Heuristic Evaluation

We conducted the heuristic evaluation for the previous Sugar Mon app with FoodDex prototype to understand all the problems. One most serious problem is that the app lacks explanations and instructions of why and how users should or could avoid unhealthy added sugars. In addition, there is no consistency in design and the icons could be ambiguous.

Scan Scene

Scan History

Problems

Priority High

- The app lacks instructions of what users can do after scanning the food.

- There are too many repetitive visual components that do not explain much about the danger of added sugar.

- The icons are not clear for what they can do.

Priority Low

Who are our users?

Based on the 1:1 interviews with 6 people worked at EChO, we divided them into 2 groups: Parents and Adults, as these 2 types of people behave differently and also have different goals. Both are interested in having a scan history to access what they have scanned before.

Parents

Behavior
She often reads ingredients and pays attention on the nutrition facts before she buy any grocery because she does not trust advertisments. Sometimes she has to search online for ingredients that she does not understand.

Pain points
- It takes too much time to read through ingredients and nutrition facts.
- Sometimes it is hard to search online, and some stores might not no or weak internet connection.

25 - 45 years old
Interested in with technology and nutrition. Usually read nutrition articles and try technologies to help them identify best food for their children and themselves.

Goal
- Needs an app to help her quickly identify healthy or unhealthy food or beverage products.
- Wants to know why some food are healthier or not.

Adults

Behavior
He often skips reading ingredients and only read calories. He likes to try new and cool food and beverage products even sometimes he has doubts on what companies claim how healthy their products are.

Pain points
- Frustrated by guessing and remembering what might be healthier.
- Never heard of Sugar Mon before.

18 - 35 years old
Interested in weight loss and nutrition. Usually read posts on social media and share food with their friends.

Goal
- Wants to share that he found a healthy food.
- Wants to know a easier way of identifying healthy food.

Personas based on 6 interviews

Understand Users' Intentions

We conducted first focus group session to understand users' intentions. Based on their feedback, their expectation and intentions can be categorized into 4 categories: Identify healthy food, Store scanned products, Learn nutrition knowledge, and Customization. The rainbow sheet analysis method helped our team to better understand users' intentions.

Rainbow sheet sample

Design Goals

We wrap up focus group analysis by defining our problems, user needs, and design goals. The general goal here is to design an engaging, efficient, and easy-to-use mobile app that can guide users to learn nutrition education.

• Identify healthy food
- Display definition of each added sugar
- Create more attractive visuals for the products without added sugar

• Store scanned products
- Search product by key words
- Share healthy products

• Better user interface
- Scan scene with clear instructions and directions
- Clearer scan history
- Clearer menu icons

Priority of the features

Based on our interviews and analysis, we learned the priority of features. This helped us create our information architecture. As identify healthy food has the highest priority, we decide to remain this scene as first scene after splash screen when user opens the app.

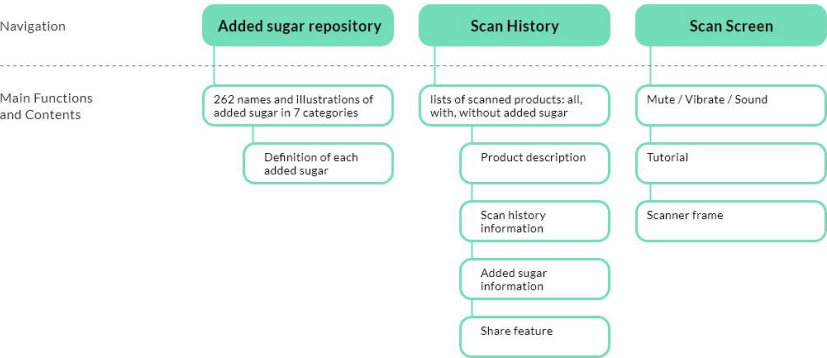| Identification	History	UI	Other

Higher ——————————————————————— Lower

Main Features and structure

Information Architecture

Based on the focus group and the evaluation of existing app, my team defined 3 main features: Identification, Scan History, and Share.
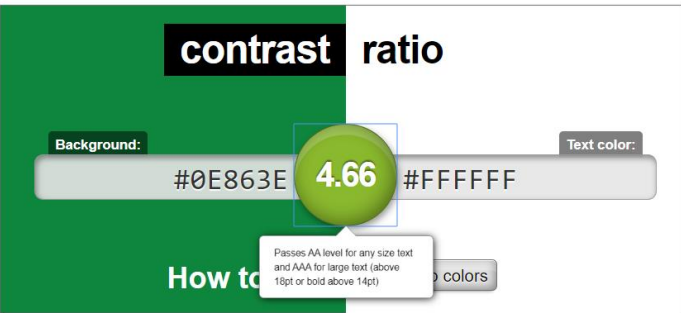
Also, we will have sharing features to introduce the app and nutrition education to attract new users.
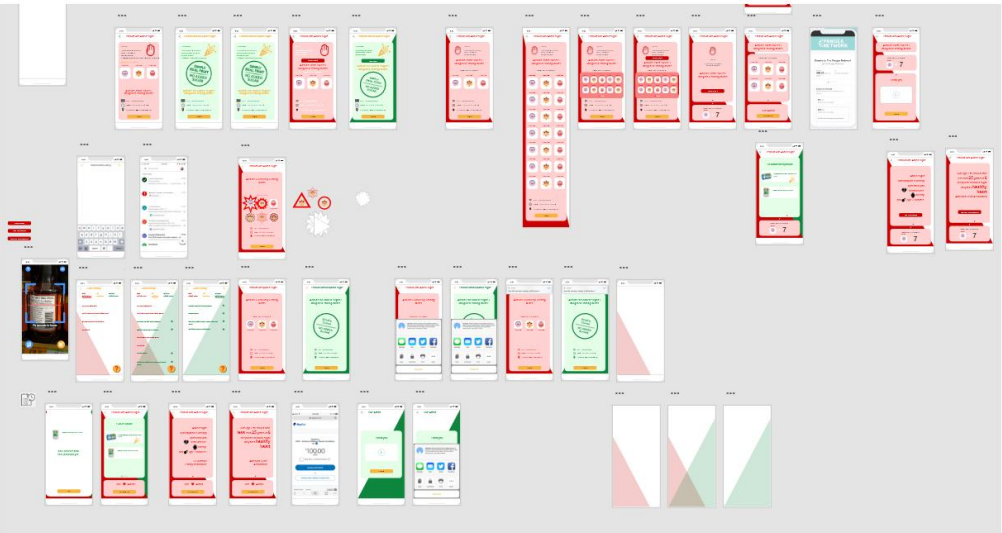Here is the information architecture that I created for the app:

Navigation	Added sugar repository	Scan History	Scan Screen
Main Functions and Contents	262 names and illustrations of added sugar in 7 categories	lists of scanned products: all, with, without added sugar	Mute / Vibrate / Sound
	Definition of each added sugar	Product description	Tutorial
		Scan history information	Scanner frame
		Added sugar information	
		Share feature	

Information Architecture based on analysis

Accessibility

All color passed WCAG 2.0 AA standards.

contrast ratio

Background: #0E863E   **4.66**   Text color: #FFFFFF

Passes AA level for any size text and AAA for large text (above 18pt or bold above 14pt)

How to   colors

Contrast test screenshot

Design screenshots for this version

Sample design in Adobe XD

Usability Testing

In this stage, my team and I conducted usability testing to test if the users can accomplish designated tasks . We also had meeting with president and development team to learn from their perspectives. As the observer in the usability testing, this is a good opportunity for me to share our design with the participants and talk to them in person.

Utility testing protocol sample

Utility testing sample

Final Design

We improved the design based on the feedbacks from several iterations according to the feedback from utility testing and meetings.

1. Scan Screen

We organized the layout and added tips to ensure the purpose of the scan screen and its features. I created icons for buttons to make the design more consistent and explain the main features. Also, we removed the hamburger menu and simply displayed all four buttons on each corner to make users feel more control and engaged in the scan process.
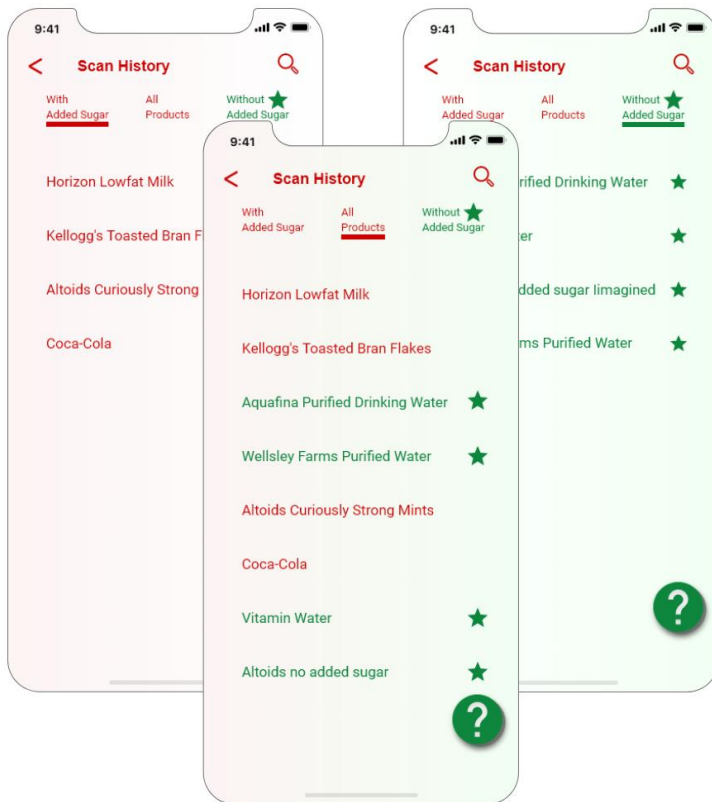
2. Scan History

Based on the findings from the utility testing, we found that our users are actually not interested in displaying when they found the products, and they want the scan history to be even more clear. So I adjusted the fonts and size, and only display the product name. The green stars are the only special icons except search and help. This way users can click with confidence without think twice about where they should click next.

## 3. Product details

One of the two missing features as I learned from the usability testing and focus group is sharing. Therefore, I designed the card looking detail screen to remain consistency of the scan screen, and added the share button on the end of each detail page. I enhanced the visual for products without added sugar, and introduced the similar looking as added sugar repository for products with added sugar, so the users can understand they can click and see the definition of the sugars and learn the awareness.
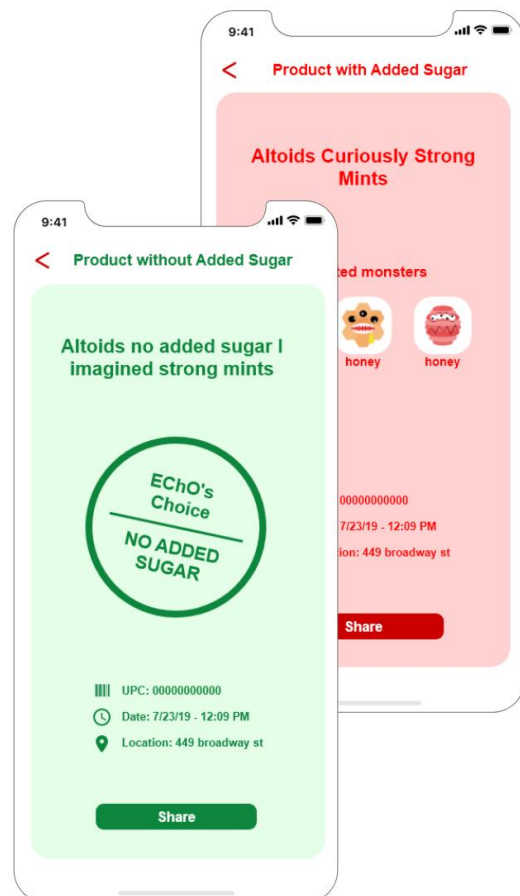
KEY TAKEAWAYS

Think from different users' perspectives.

When I conducted usability testing as an observer, I found out without a clear instruction, people can perform totally different behaviors using the same app. And the focus group taught me to be more empathetic when explain my design, I should never assume they have the knowledge of professional terms and abbreviations.

Don't be afraid of being criticized

In this project, I had the chance to talk to many people for feedback. Sometimes they are delightful, sometimes they can be harsh. I learned not to focus on the emotion but the reason behind, and ask them why even five times if that gets me to the answer. I am not scared of asking question after being criticized anymore because that is just a process.