

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.

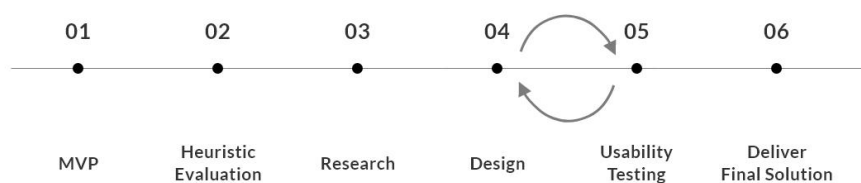
ROLE

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

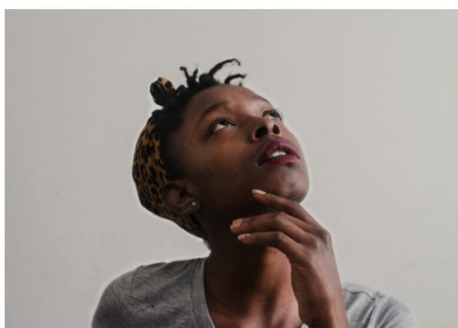
METHOD & TOOL

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

PROCESS OVERVIEW



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

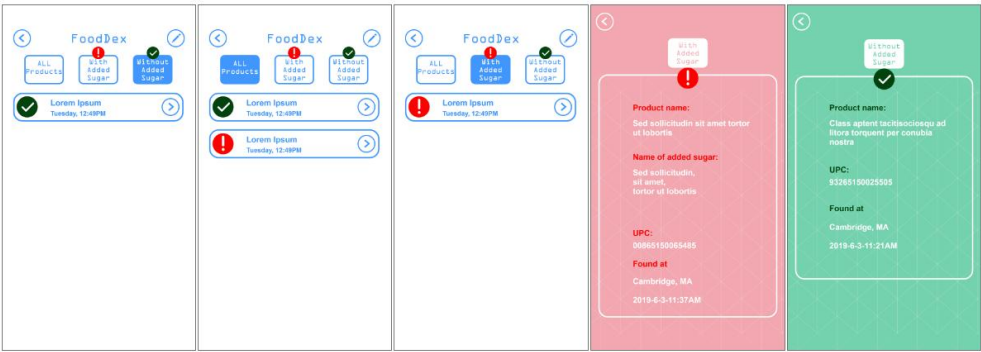


How do we create an engaging and easy-to-use scan history that help families choose healthier food or beverage products?

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.

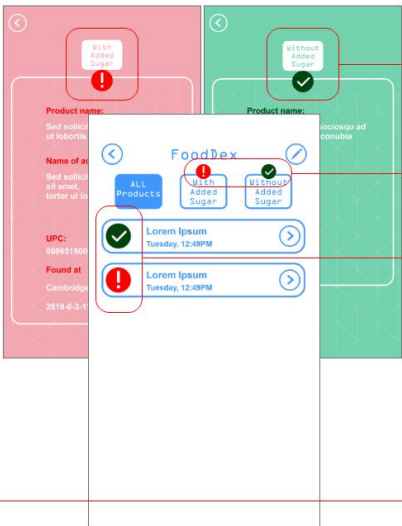
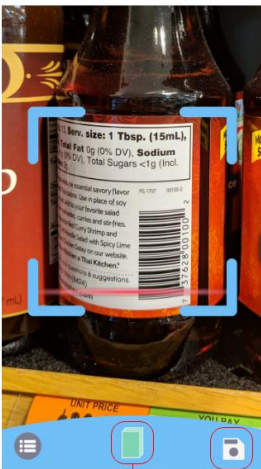


MVP Scan History Overview

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.



Problems

- 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


High

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



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.

Behavior

She often reads ingredients and pays attention on the nutrition facts before she buy any grocery because she does not trust advertisements. 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.

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



18 - 35 years old

Interested in weight loss and nutrition. Usually read posts on social media and share food with their friends.

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.

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.

	A	B	C	D	E	F
1	Can SUGAR Mon help you decide what to eat or drink?	Identify healthy food	Store scanned products	Learn nutrition knowledge	Customization	Search
2						
3	easier to use. Thought Color cards indicate evil sugar					
4	indicate how much added sugar one can consume.					
5	want to know the unknown monsters(give name?) What about the food without barcodes?					
6	sugar quantity(tsp) and how much should eat per day					
7	Show how much sugar one is consuming					
8	Remember what kind of food products the sugar is from. On day, find out the products where you got the monster(list)					
9						
10	How can we improve it?					
11	Keep track of the green label food and also the green label leaderboard.					
12	Don't know if the orange card means that it already scanned the products.					
13	Having a diary of the good products.					
14	People want to be aware of what they buy for themselves.					
15	Search button for your favorite product and let user know what sugar it had					
16	Type name and search product to see how many added sugar in the products					
17	Daily reminder for having fruit or good products					
18	Record of all the products scanned: good + bad product					
19	Don't think young adults cares					
20	Leaderboard making it chasing sugar instead of away from sugar.					
21	Level up and experience with scanning green products					
22	Avatar profile and unlock achievements					
23	Incentive system, implement reward system. Picture tapping to reveal sugar in picture					

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

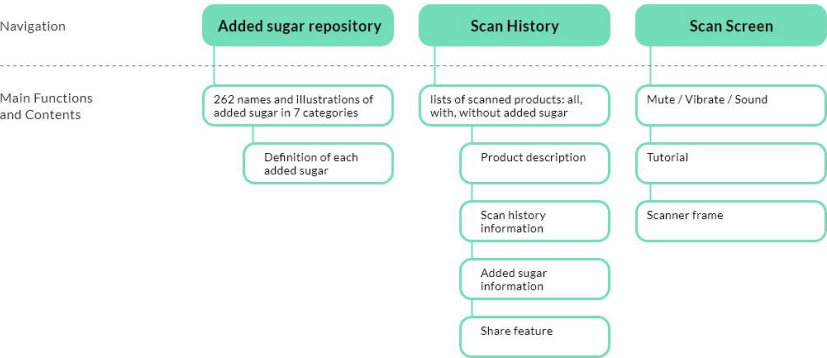
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Main Features and structure

Information Architecture

Based on the focus group and the evaluation of existing app, my team defined 3 main features: Identification, Scan History, and Share.

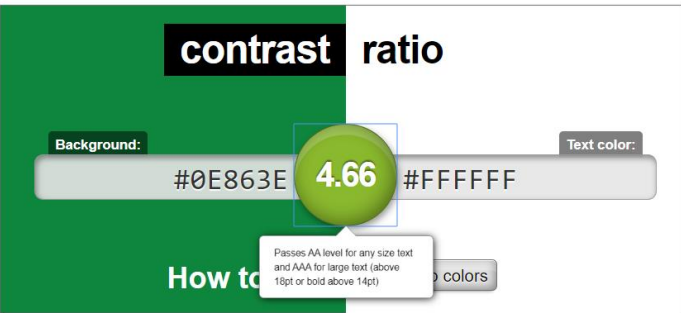
Also, we will have sharing features to introduce the app and nutrition education to attract new users.
Here is the information architecture that I created for the app:



Information Architecture based on analysis

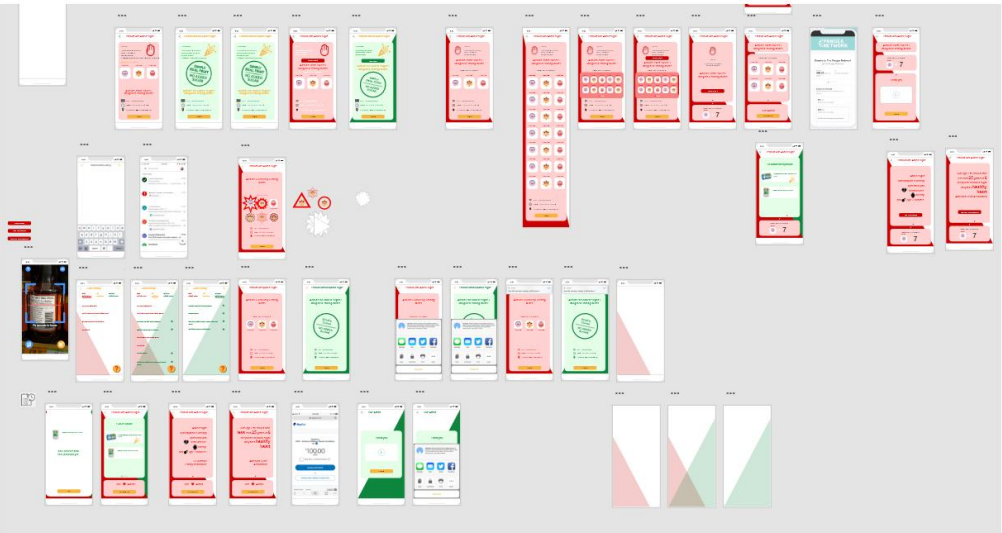
Accessibility

All color passed WCAG 2.0 AA standards.



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.

Usability Test Protocol: SugarAR Mon

Objective

The objective of this test is to investigate educational AR application for premed

Introductory Statement

Hi, my name is [Name]. I'm a [Year] year college student. I'm here to help you with your research. I'll be asking you to try out a new application called [Application Name]. I'll be asking you to try out a new application called [Application Name]. I'll be asking you to try out a new application called [Application Name].

Pre-Test Questionnaire

Before we begin the test, I'd like to ask you a few back questions.

First, can you tell me a little about your education or current occupation? What do you do during the day?

How many people lived in the household?

How often do you go to the library?

Do you use the bus to get to work/school?

When you were asked to do what some of the tasks, how did you feel about the application? (Please use the following scale: 1 = Strongly Dislike, 2 = Dislike, 3 = Neutral, 4 = Like, 5 = Strongly Like)

Are there any factors that hindered your performance?

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Utility testing protocol sample

[illegible]

Utility testing sample

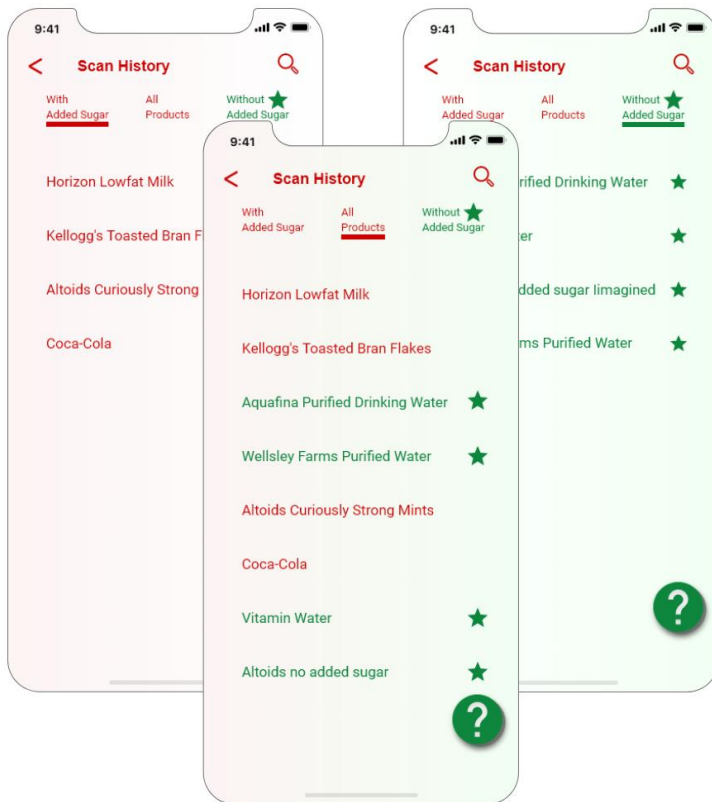
Final Design

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.



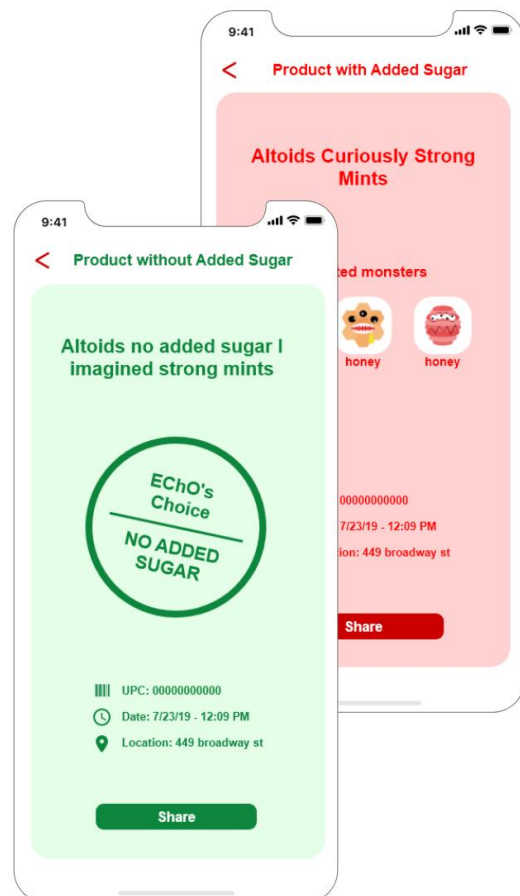


2. Scan History

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.