Informatics 132: Redesign

Discussion: Monday 10am-10:50am

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Table of contents

Table of contents 2

Executive Summary 3

Introduction 4

Description of Redesign Targets 5

Redesign Target 1: Change levels feature 5

Problem: 5

Evidence: 5

Process: 6

Redesign Target 2: Change start page/landing page 7

Problem: 7

Evidence 8

Results: 9

Redesign Target 3: Buttons/Navigation Layout/Look 10

Problem 10

Results: 12

Redesign Target 4: Rewarding feedback 13

Problem: 13

Evidence: 13

Process: 14

Results: 14

Appendix 15

Sketches by Dalia Mills 15

Sketches by Jose Farias 23

Sketches by Ailyn Gonzalez 26

Sketches by Sazeda Sultana 28

Sketches by Nitin Nallan 33

Executive Summary

The following report has been developed with the purpose of identifying usability issues of Freerice, an online non-profit food donation website, in order to guide the evaluation and redesign of the system. The report entails information regarding existing design issues found based on usability testing, user interviews, and competitive analysis.

The first step in this process was determining the goals of the system as is in order to obtain a better understanding of the purpose of Freerice. After determining the goals of the system we were able to develop objectives to help guide our study's tasks. The team determined that the research would be guided by the following objectives:

- Determine what drives users to use the system
- Determine why users stop using the system
- Determine whether the type of food being donated affects users' interaction with the system
- Determine whether the knowledge learned from the system is utilized

In an effort to identify usability issues of Freerice, the team used the following two methods: Usability testing and cognitive walkthroughs. The team then developed a series of tasks to drive the usability tests, and a seperate set of tasks for the cognitive walkthrough. The purpose of these tasks was to help the team see how users interact with the system when given a task to complete. Through this process we were able to gather data on what steps users took to achieve this goal and how users interacted with the system while attempting to complete the given task. This aided in determining whether or not system features are being used as intended and how the system can be improved. The following are the conclusions drawn from this study:

- Often users are unable to properly sign up due to the size and location of the buttons
- Users ability to signup with a desired username is difficult due to lack of feedback from the system when selecting a username, resulting in constantly re-submitting details in order to find an available username
- The "groups" button on the menu blends with rest of site and makes it hard for users to spot the given feature, this not only goes for the groups button but most buttons on the navigation menu
- Leveling system is poorly designed as Users are unable to select a starting difficulty until after having answered the first question.

After having collected information regarding the system via user interviews, cognitive walkthroughs, etc… the team came up with the following four redesign targets for the system:

- Buttons/Navigation Layout/Overall Look/Login and Signup system as many issues exist with the current system, from lack of feedback when users select unavailable/invalid usernames to latency issues when signing up and logging in. As well as issues with users locating buttons due to color scheme, layout, etc..
- Changing the ways users see and interact with the change levels feature as it is hidden from users until after answering the first question as well as location of the button and style makes it difficult to identify as a button
- Incorporating rewarding feedback into the system as users lose interest due to lack of change within the system when answering questions. As well as lacking a feeling of accomplishment when answering multiple questions correctly
- Changing Start page/Landing page/Game flow as the system currently exists it fails to provide users with a sense of direction. The system exists as learning game/donation game but fails to behave like a game as it gives no directions

The previously mentioned redesign targets are addressed by combining desired solutions from sketches drawn by team members, which were driven by user provided suggestions, usability principles, and other UI/UX design principles. The landing page now acts like a proper “game” by providing new users a quick tutorial when first visiting the website showing them where all the information they need to know is at. The navigation layout and overall look of the system has also been changed to better reflect a modern style and by the removal of unnecessary features like a “home”/”Game” button on the main page. The interaction between users and the change levels features has been changed so it is present at all times and has its location shown via the tutorial. Lastly the system now incorporates rewarding feedback, when users answer multiple questions correctly they are provided with auditory feedback (which can be disabled if users please) and visual feedback in the form of a message/alert (which can also be disabled if users please).

Introduction

Freerice is a non-profit ad-supported system that allows users to play a quiz-like game where correct answers result in the donation of rice through the World Food Programme. For every question answered correctly on the site 10 grains of rice are donated. There are a multitude of subjects available on the system for users to choose from allowing for both learning and donations to occur

simultaneously. The system offers users the ability to learn Math, English, Other languages, Sciences and more while donating.

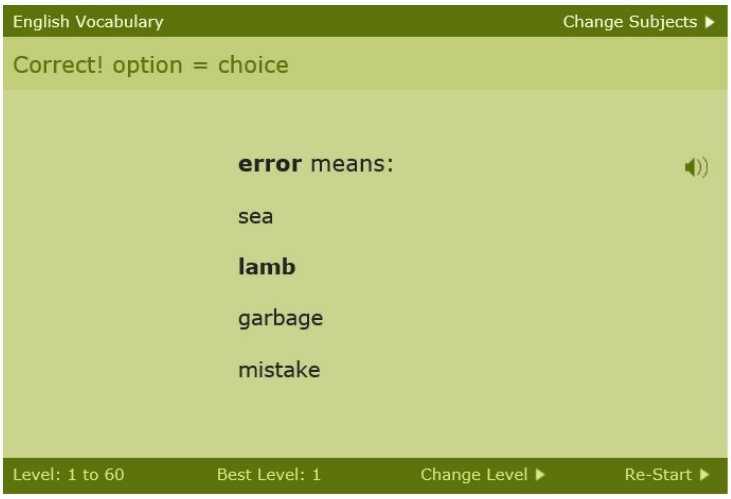
The website extols the vocabulary game as a tool to expand their mental lexicon in ways such as being able to better formulate ideas, write more effective papers, speak more precisely, and read faster. Through this website, users can use their knowledge to help end world hunger. Despite this noble cause, the user interface is clunky and unappealing, and the main activity that allows people to donate rice is boring. The web site's poor execution prevents it from being a product that most users would want to use. The idea of using a web browser game to both increase people's knowledge and contribute to fighting world hunger is a good cause that could be improved upon with some user focused design. There exist a number of other direct competitors that have more appealing user interfaces, features, and functions that place this system at risk. Our goal is to determine where the weak points of the system currently are via user research and usability tests in an effort to redesign and improve the system.

Description of Redesign Targets

Redesign Target 1: Change levels feature

Problem:

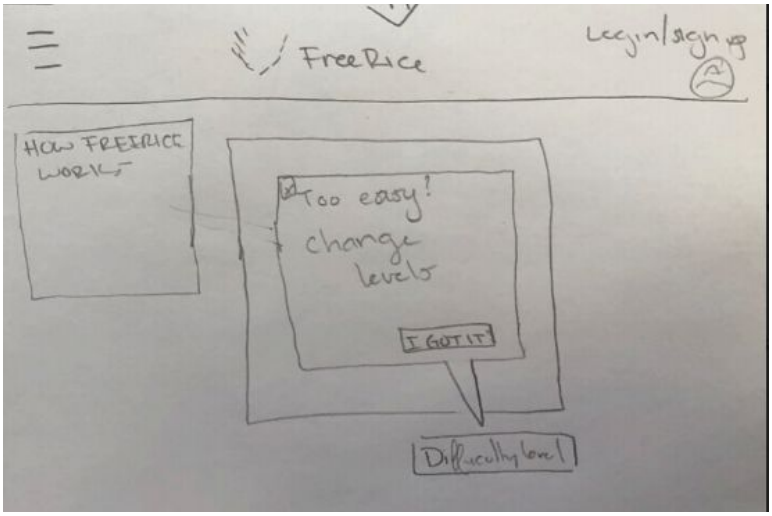
Many users found the initial level to be rather easy and wanted to be provided with a challenge. However, most were not aware that they could change the difficulty level.



Evidence:

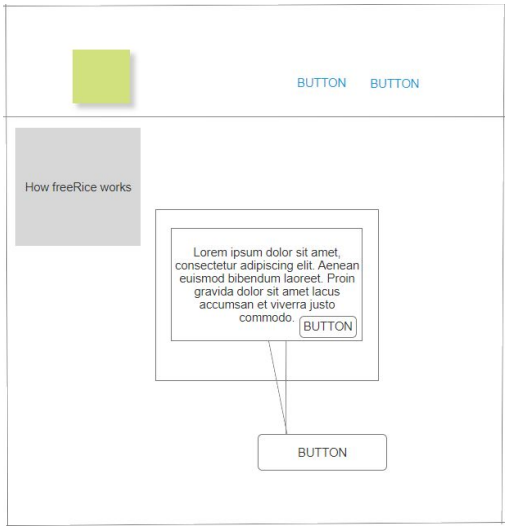
The eye trackment of the users initially goes to the middle of the screen and stays there for the remainder of the time as their attention is focused on the questions. This leads to users then ignoring the bottom of the page which includes the following details and buttons: "Level", "Best Level",

“Change Level”, and “Re-start”. When first viewing the site it took the team some time to notice this section, similarly the interviewees also experienced difficulty. Our goal was to provide individuals with a challenge if they desired it and due to the system being targeted towards users of a large range of ages, we determined it was poorly located as for those who wanted to change their levels couldn’t as they didn’t know how to. In hopes of alleviating this issue we decided to include the feature in a tutorial, alongside relocating it.



Process:

In the above sketch we decided to only focus on the main problem, to help simplify the visual. In this way users could easily understand how to play and where to change levels as they were shown via a tutorial.



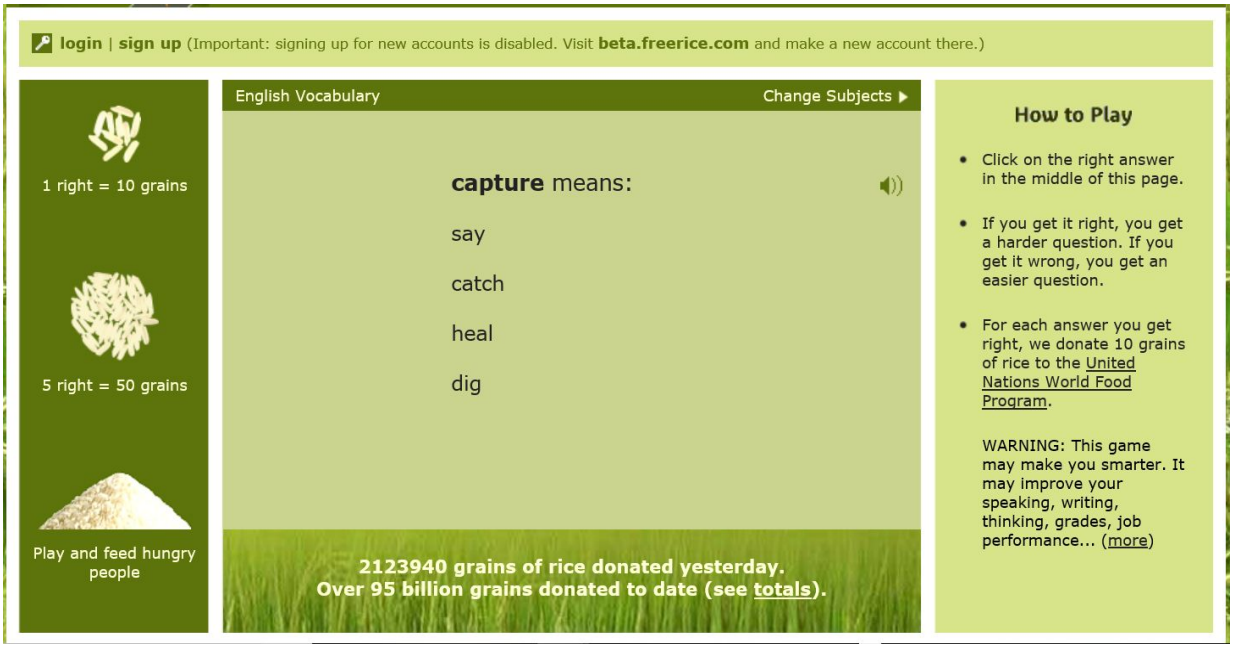
Results:

To improve this concept we went with a “Tutorial” prompt to help new users navigate the site. On the users first time visiting the site, they will be presented with a message/tutorial showing where the “change level” button is located.

Redesign Target 2: Change start page/landing page

Problem:

New users have a difficult time understanding how to use and navigate Freerice.com. Due to there being no actual “start” button or any obvious instructions to guide then this can cause the user to lose interest in the site and not revisit. To begin playing you simply have to answer a question and click the correct response. However, since there are no buttons new users tend to be confused.



Evidence

While the game flow was not right, one of the users during the interview was having difficulty on how to start playing the game as playing games instruction comes later after starting the game.

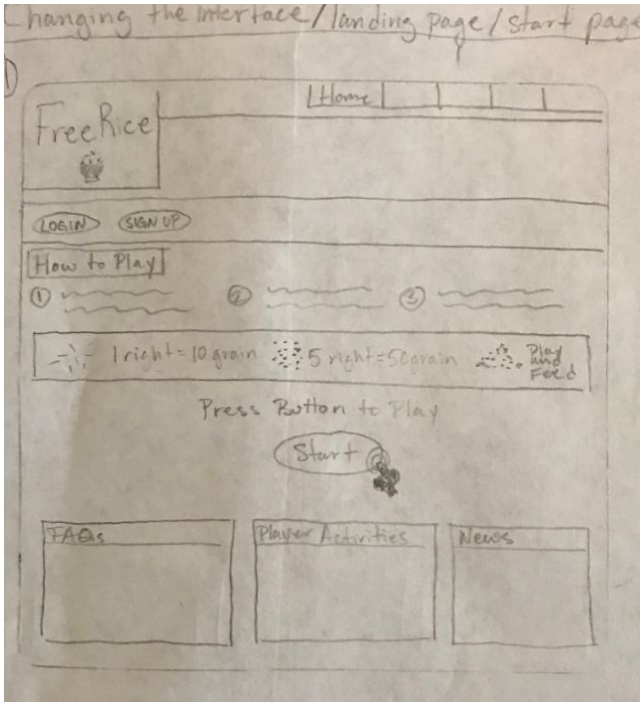
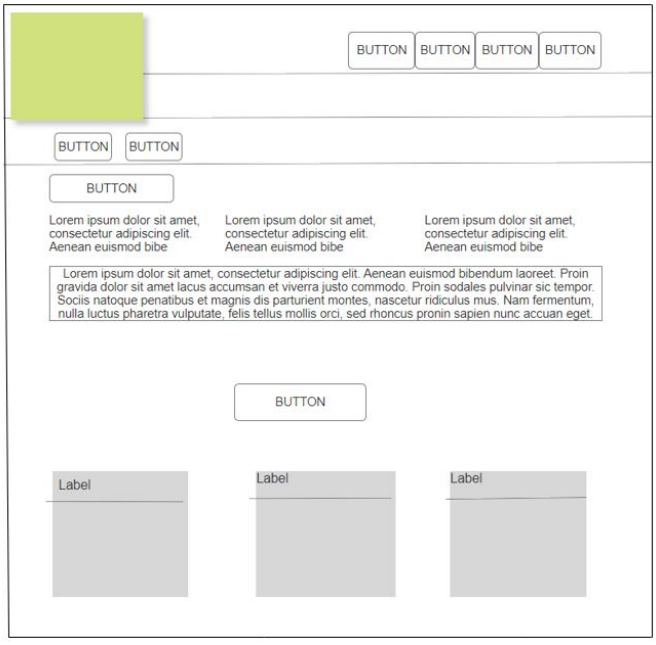


Image 2.3: sketch of game flow 1

Image 2.3: sketch of game flow 2

Results:

This redesign prompts how to navigate the site when you first enter. This allows the user to understand it is a game. Giving the users a set of instructions prevents users from leaving the site due to confusion.



Redesign Target 3: Buttons/Navigation Layout/Look

Problem

Navigation layout can get a little confusing. After sign-up or log-in, there is no feedback that can assure us that the steps have been completed properly. Feedback is given such way that it can easily be unnoticed by users.

Image 3.1: After signing up feedback can get unnoticed by users

Evidence:

During our cognitive walkthrough our users signed up for an account multiple times. Without realizing it, they had already created an account. Therefore, is section lacks feedback.

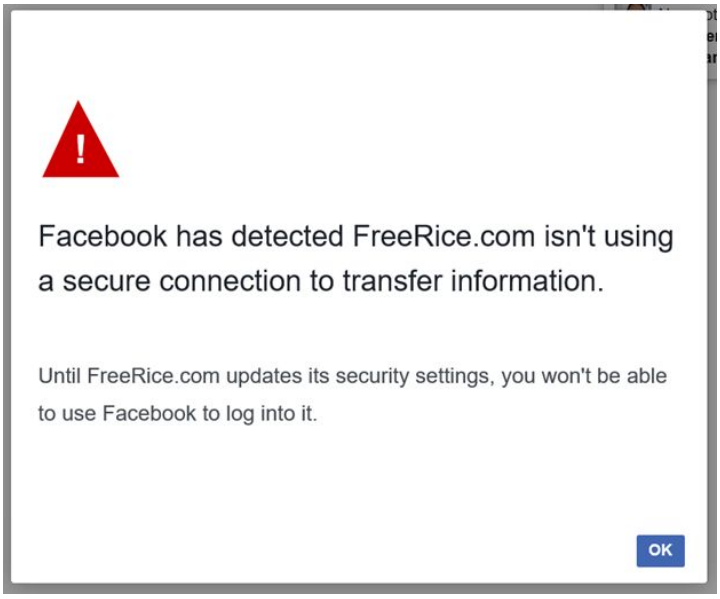


Image 3.2: Restricted facebook sign-up page

Process:

We decided to redesign by using methods of feedback. After successfully creating an account the user will see a pop-up notification to ensure that they have created their account. We also redesigned the sign-in and sign-up page. By using boxes and clearly labeling everything we believe this will help the user recognize that it is a sign-in/up page.

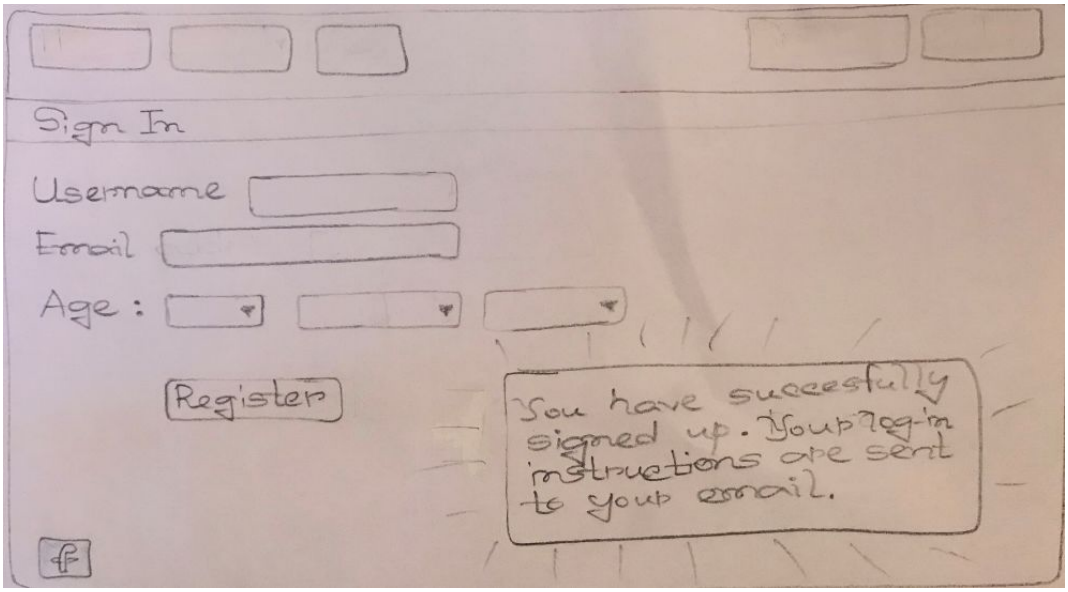


Image 3.3: sketch of feedback with pop-up window after signing up

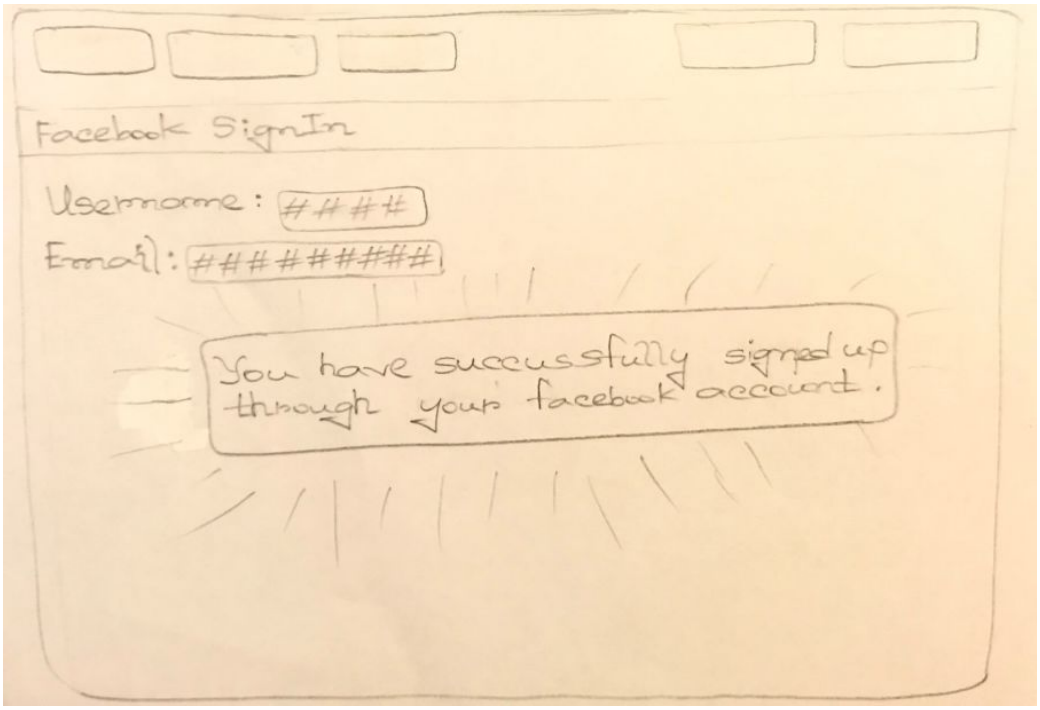
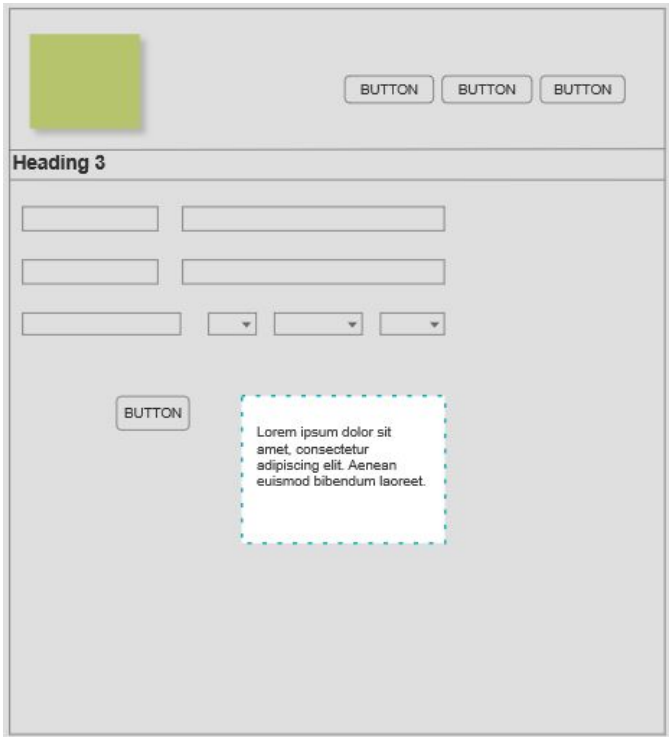
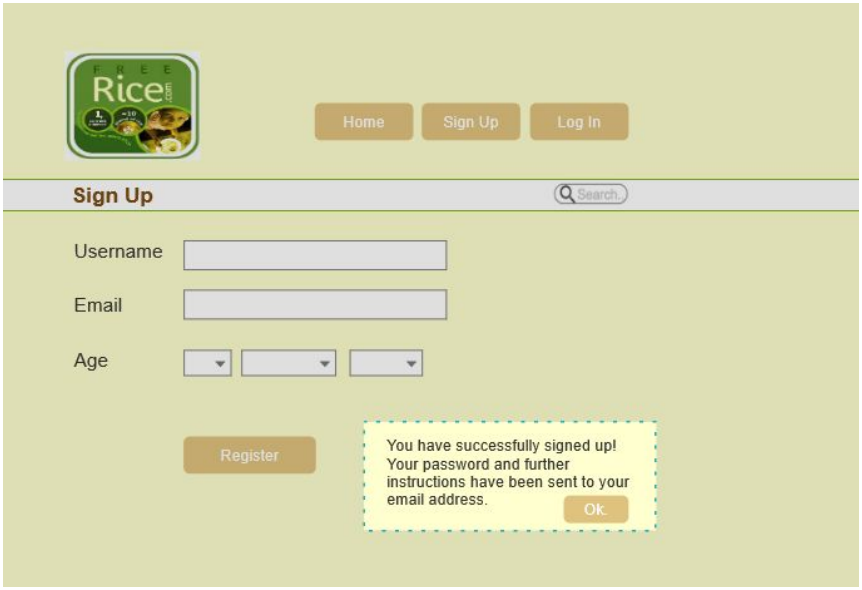


Image 3.4: sketch of feedback with pop-up window after signing-up with facebook



Results:

This redesign is as simple as our sketch. It is recognizable as a sign-in/up page.



Redesign Target 4: Rewarding feedback

Problem:

This was one of the aspects our users enjoyed the most. However, we wanted to improve it a bit more because the feedback we received suggested that they wanted progressive feedback that really exemplified the impact they were making by playing this game`. Therefore, a solution was to make a bigger pop-up that congratulates the user on their hard work.

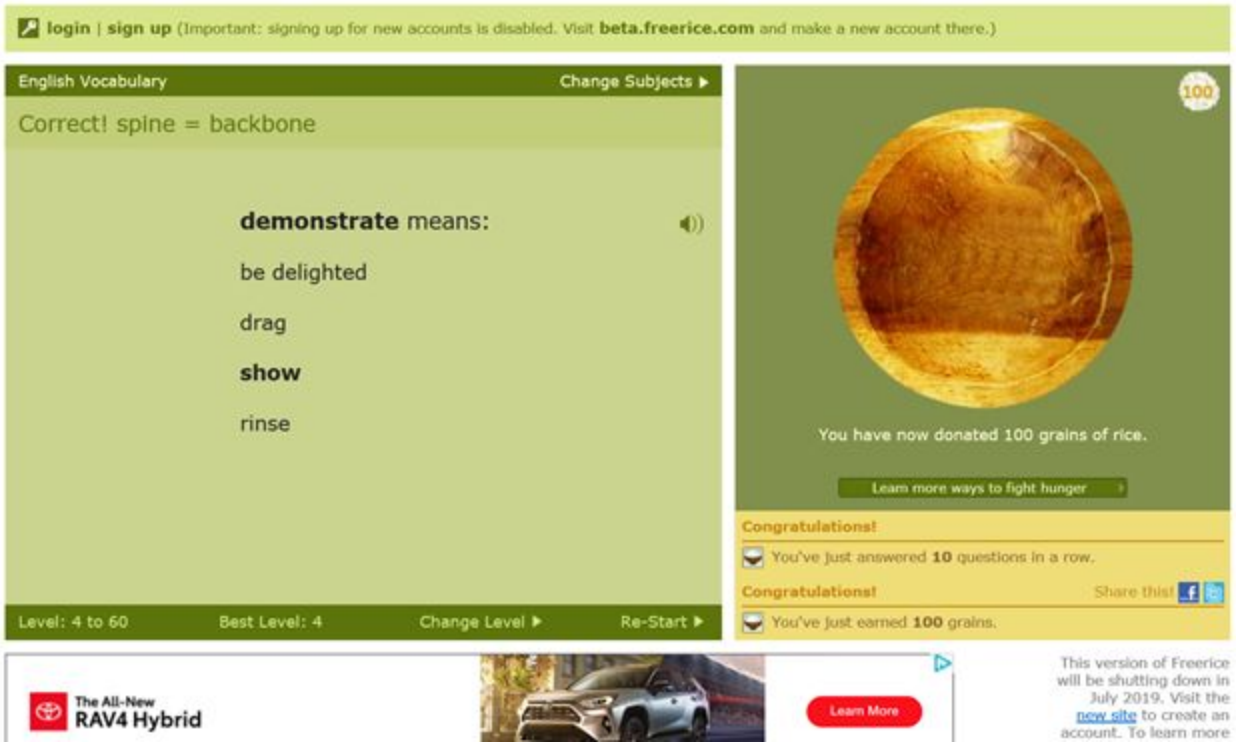


Image 4.1: Feedback is not effective and encouraging for users

Evidence:

In one of the interviews, one user was playing the game without feeling like they were making an impact based on how much rice they were gaining or how many answers they were getting correct. There is no feedback option in the website that encourages the users to continue playing.

Process:

This section prompts a welcoming and enjoyable screen that touches base with emotions. Because this is a website that is doing good for those in need it was necessary to display a sense of gratitude for the users donation.

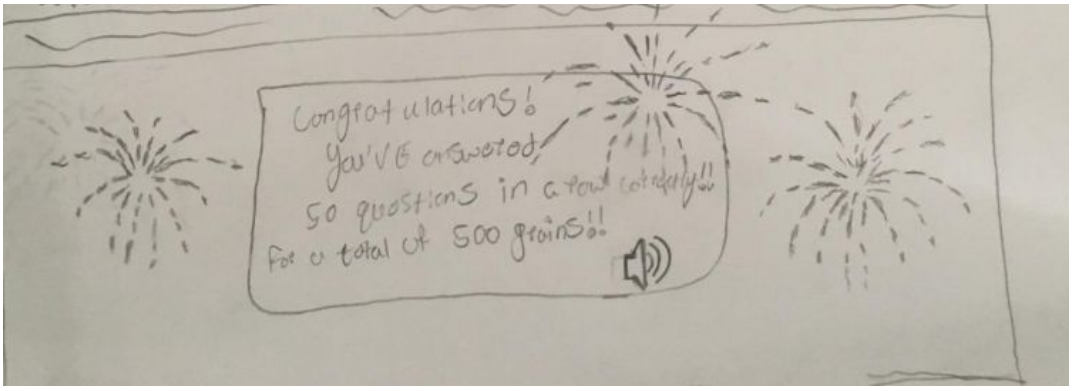
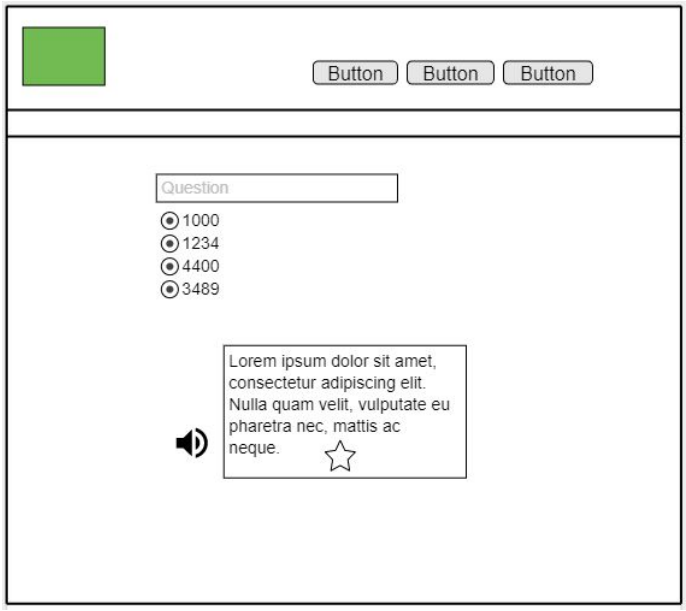
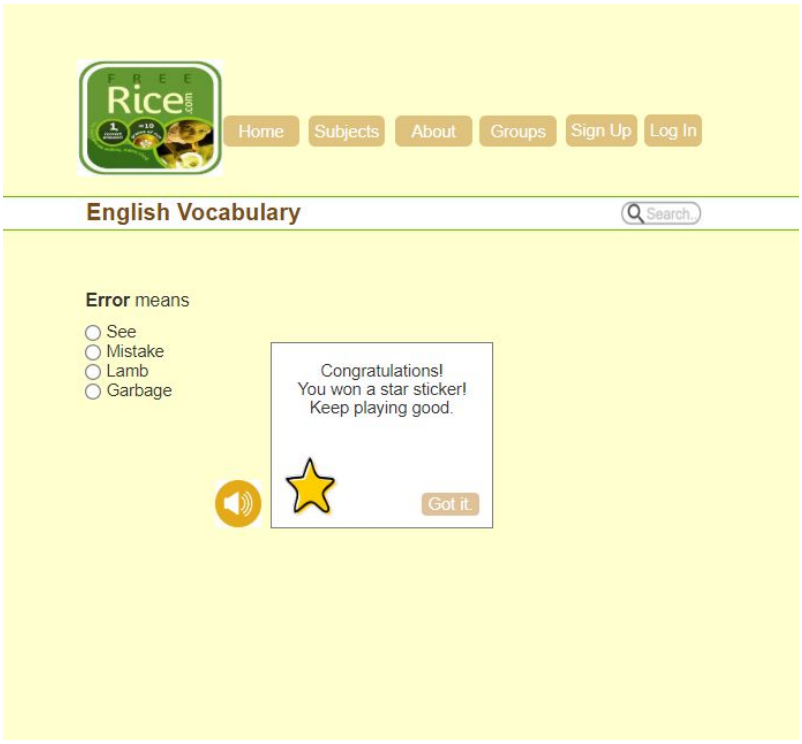


Image 4.2: sketch of rewarding feedback

Results:

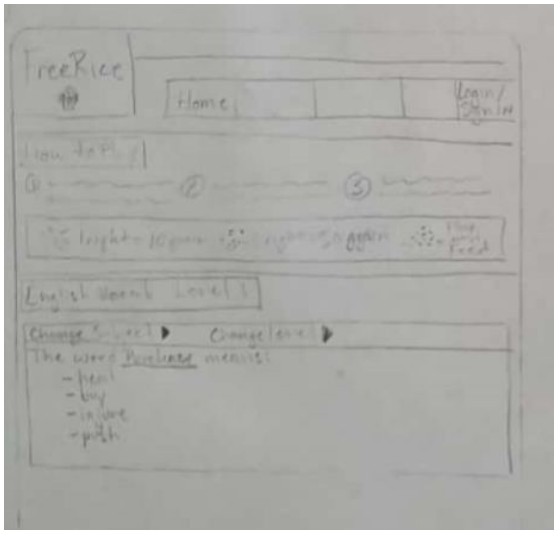
Below is wireframe and mockup of the web page where it encourages feedback.





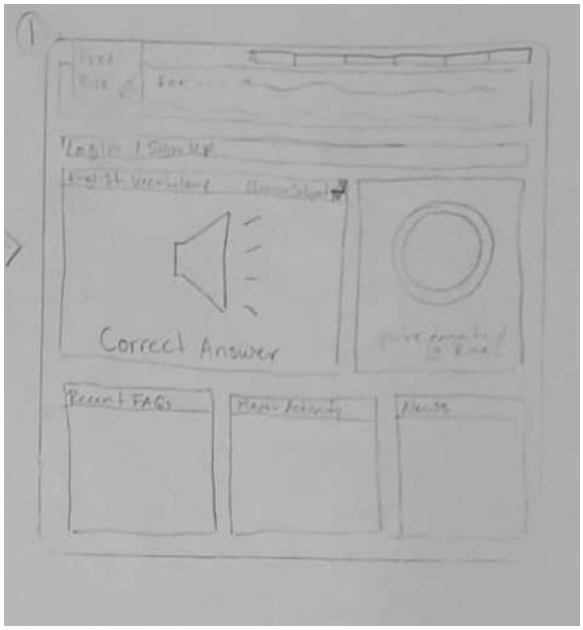
Appendix

Sketches by Dalia Mills

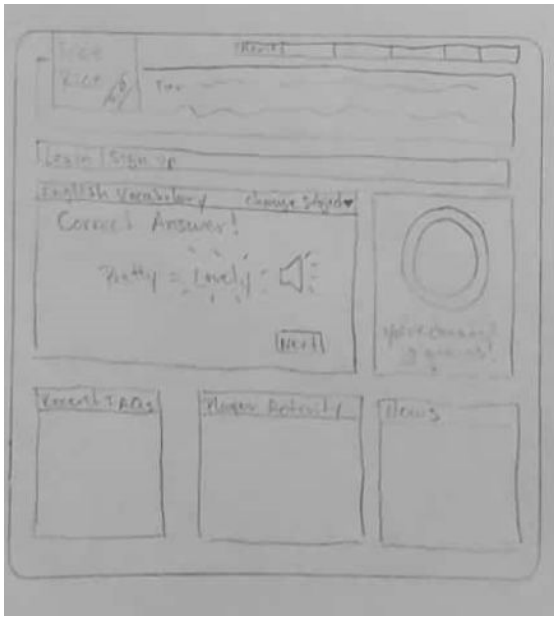

FreeRice
Home
Login/Sign In
English Vocab Level 1
Change Subject
Change Level
The word Purchase means:
- heal
- buy
- injure
- push

English Vocabulary Change Subject
pretty means:
lovely
unique
plump
speedy
How to Play
Recent FAQs
Player Activities
News

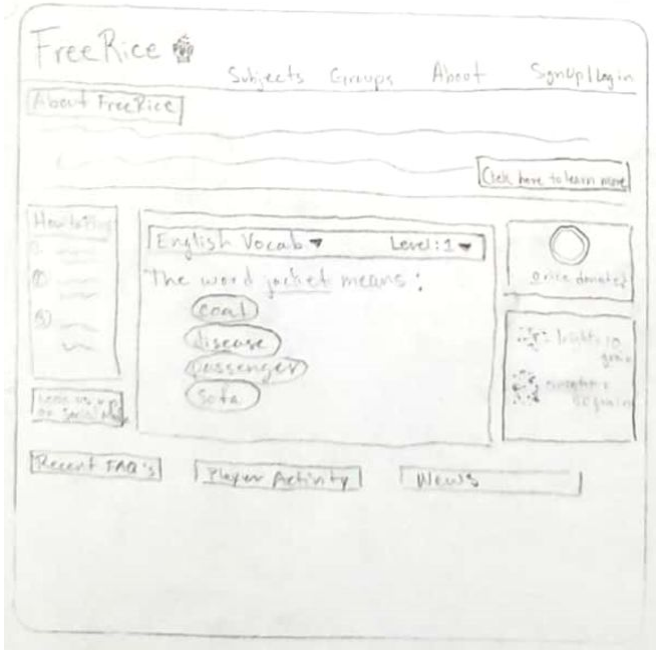
Free Rice
English Vocab
Level: 1
The word purchase means:
~heal
~buy
~injure
~push
Change Subject
Change Level
FAQs


Correct Answer

Free Rice
Home
Press Button to Play
Start
FAQs
Player Activities
News

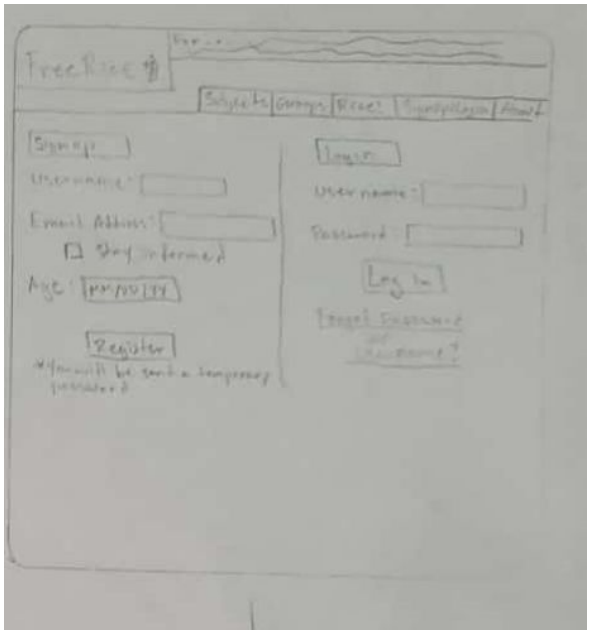

Free Rice
Home
Login
Sign Up
English Vocabulary
Correct Answer!
Pretty = Lovely
Next
Recent FAQs
Player Activity
News

Navigation layout + Login / Signup buttons
1
FreeRice
English
Signup | Login | Subjects | Groups | Rice! | About
For every answer you get right,
How to Play!
EXAMPLE
English Vocabulary
Level: 1
The word vacation means:
Choose Level
Change Subject
holiday
saloon
mother
woman
Player Activities
News
Follow us on Facebook
2


FreeRice
Subjects Groups About Signup/Login
About FreeRice
Click here to learn more
English Vocab
Level: 1
The word jacket means:
coat
disease
passenger
sofa
Recent FAQ's
Player Activity
News

Free Rice
Congraaulations for Reaching 1,000 grains!

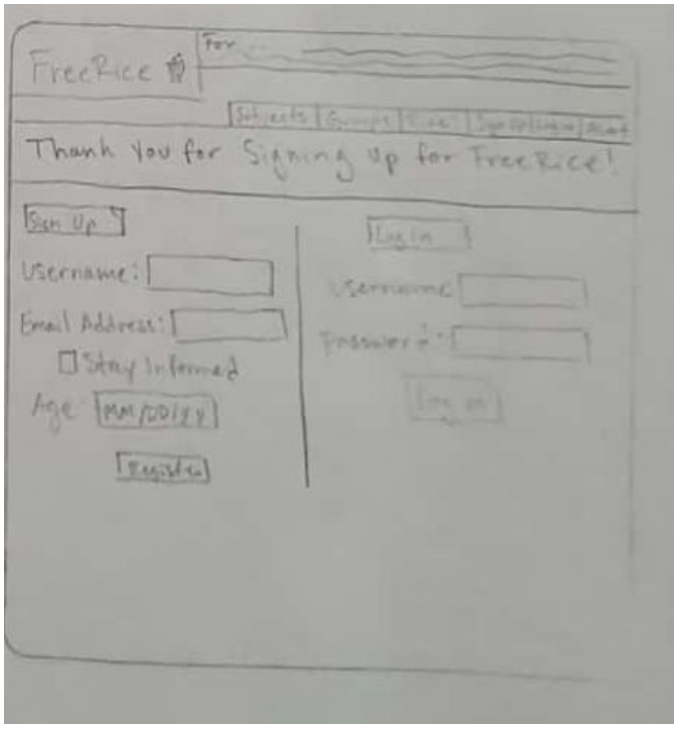
Free Rice
FAQs
News


FreeRice
Sign up
Log in
Register

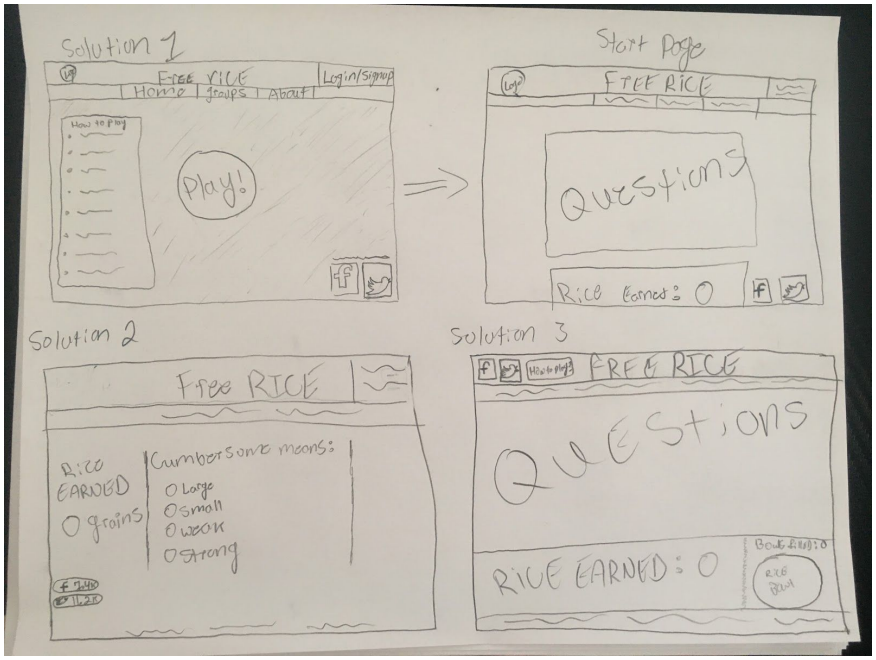
FAQ's

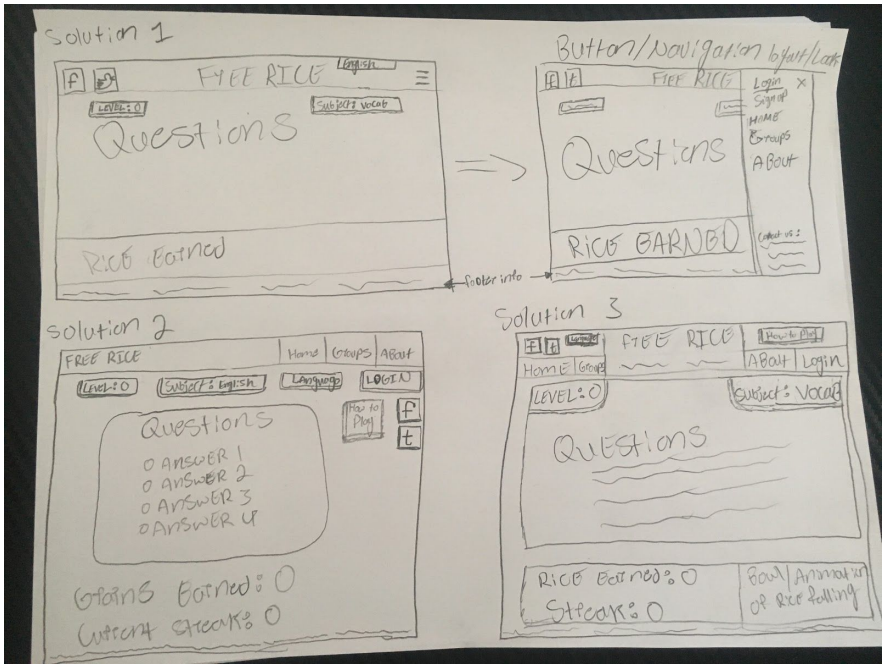
FreeRice
Home
Login | Sign Up
English Vocab
Level 10
How to play
Facebook

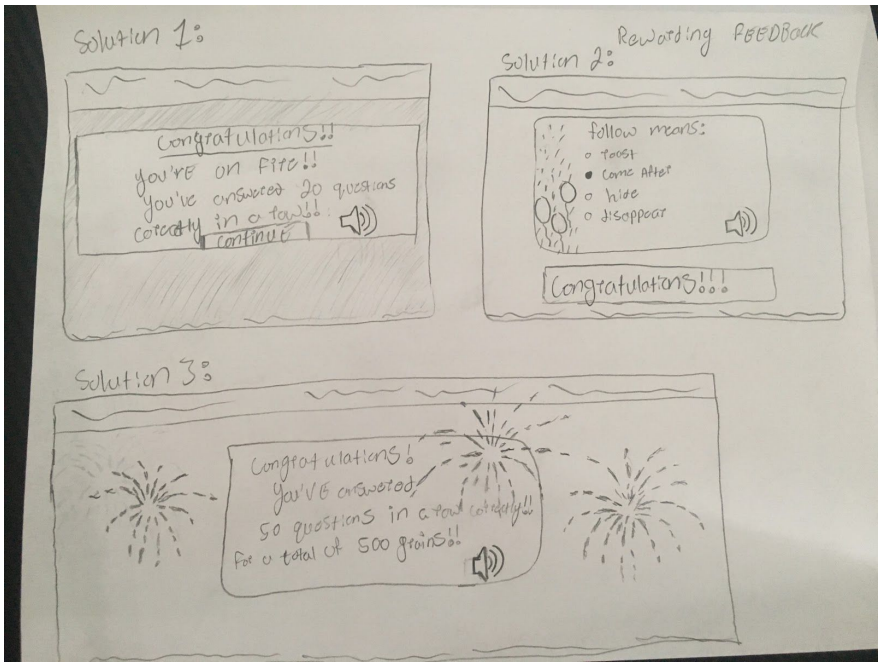
FreeRice
Home
Login | Sign Up
English Vocab Level 5
How to play
Facebook

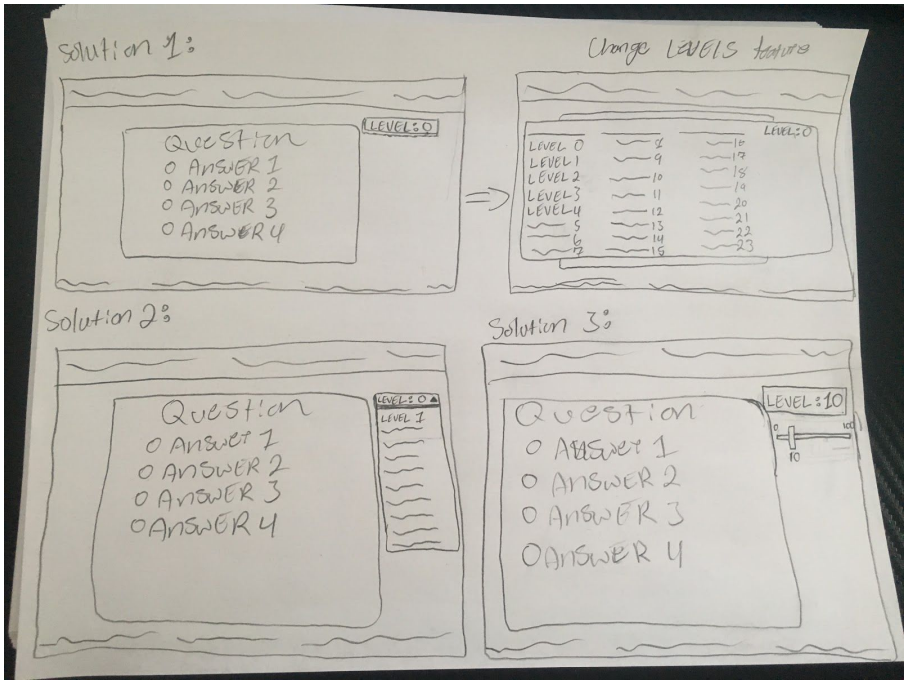


Sketches by Jose Farias

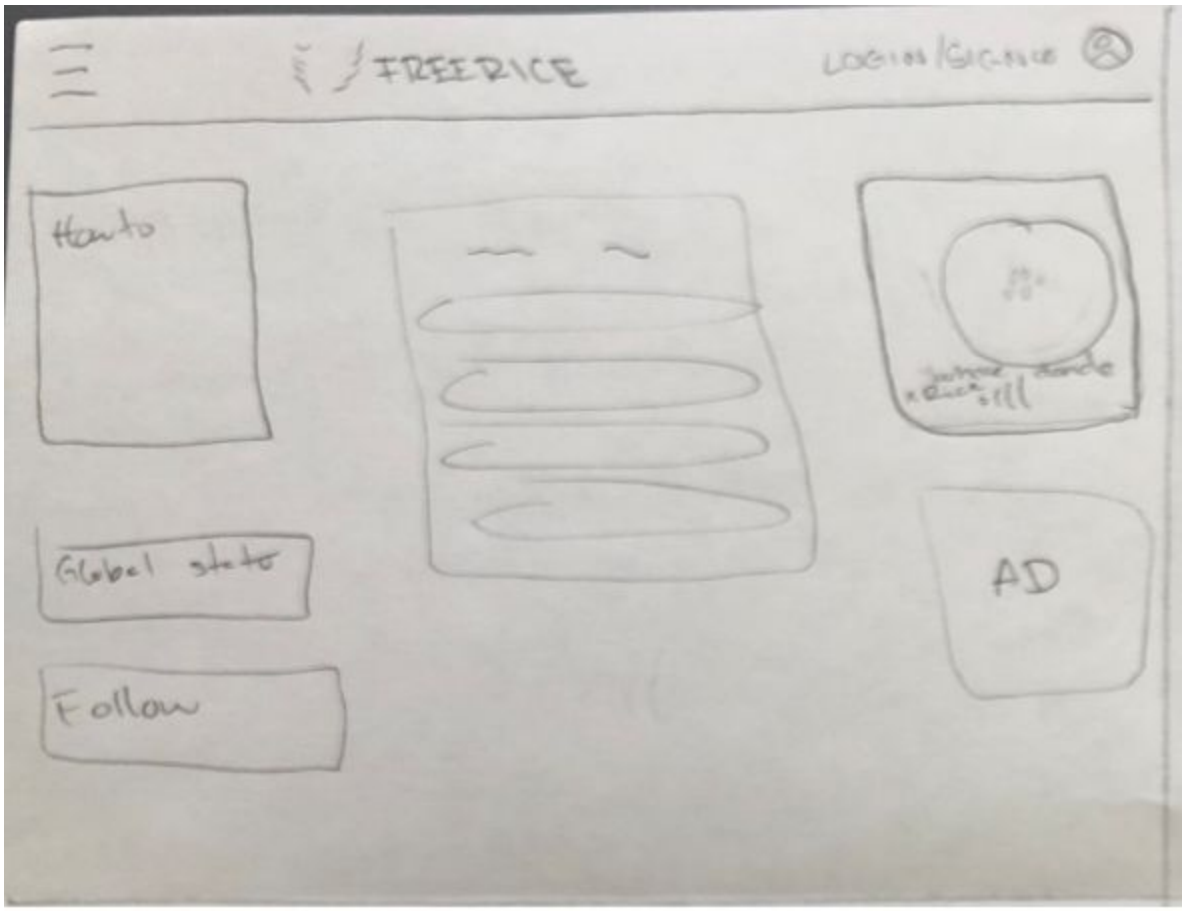


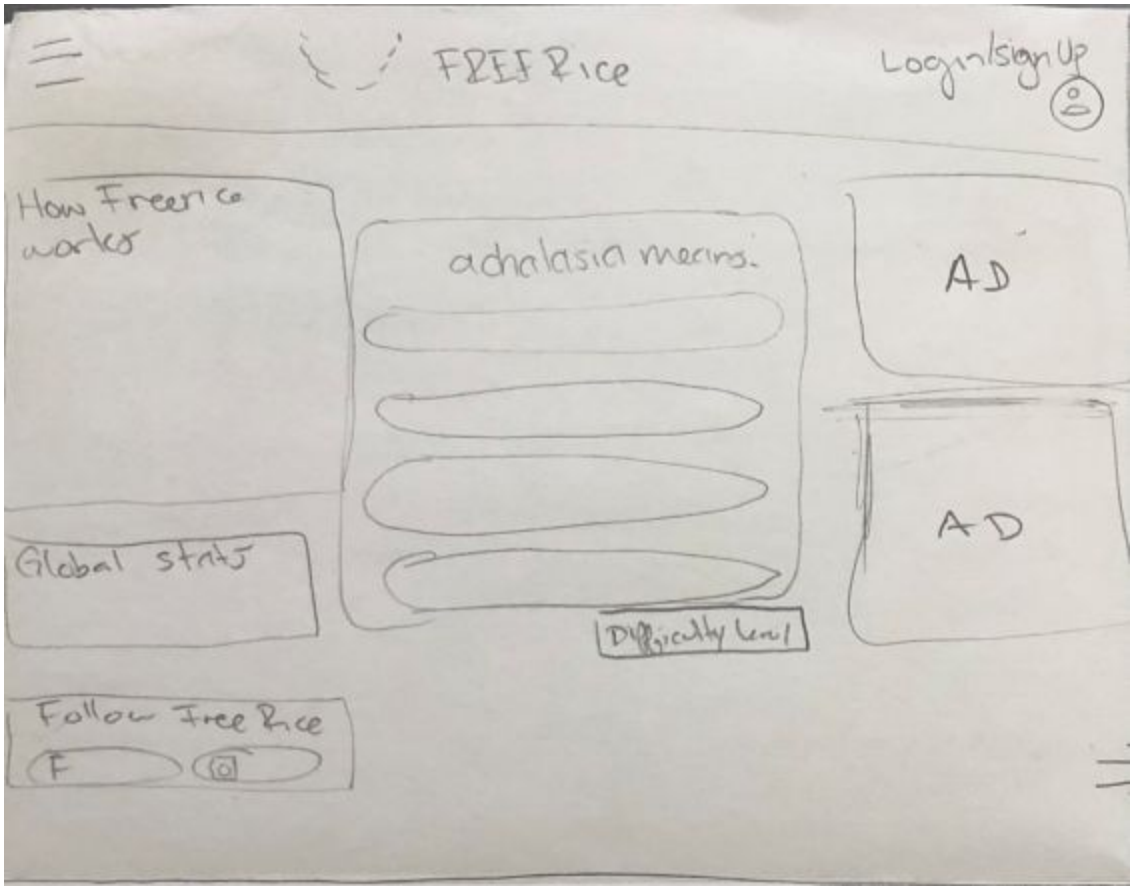

Solution 1
FREE RICE
Questions
Rice Earned
Button/Navigation to left/Left
FREE RICE
Login
Signup
HOME
Groups
ABOUT
Questions
RICE EARNED
Solution 2
FREE RICE
Home
Groups
About
LOGIN
Questions
ANSWER 1
ANSWER 2
ANSWER 3
ANSWER 4
Grains Earned: 0
Current Streak: 0
Solution 3
FREE RICE
Home
Groups
About
Login
LEVEL: 0
Subject: Vocab
QUESTIONS
Rice Earned: 0
Streak: 0

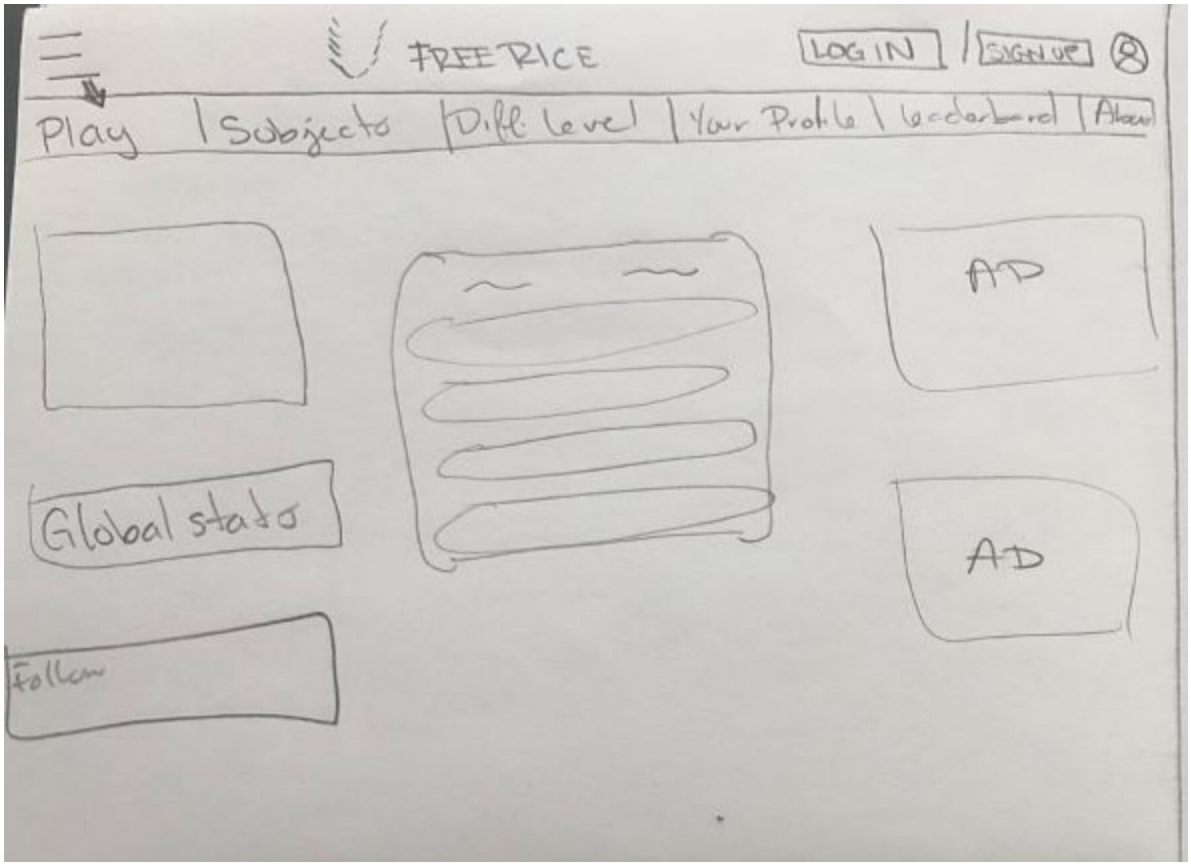

Solution 1:
Congratulations!!
You're on Fire!!
You've answered 20 questions
correctly in a row!!
Continue
Rewarding FEEDBACK
Solution 2:
Follow means:
Toast
Come After
Hide
Disappear
Congratulations!!!
Solution 3:
Congratulations!
You've answered
50 questions in a row correctly!!
For a total of 500 grains!!


Solution 1:
Change LEVELS feature
Question
O ANSWER 1
O ANSWER 2
O ANSWER 3
O ANSWER 4
LEVEL: 0
LEVEL 0
LEVEL 1
LEVEL 2
LEVEL 3
LEVEL 4
Solution 2:
Solution 3:
LEVEL: 10

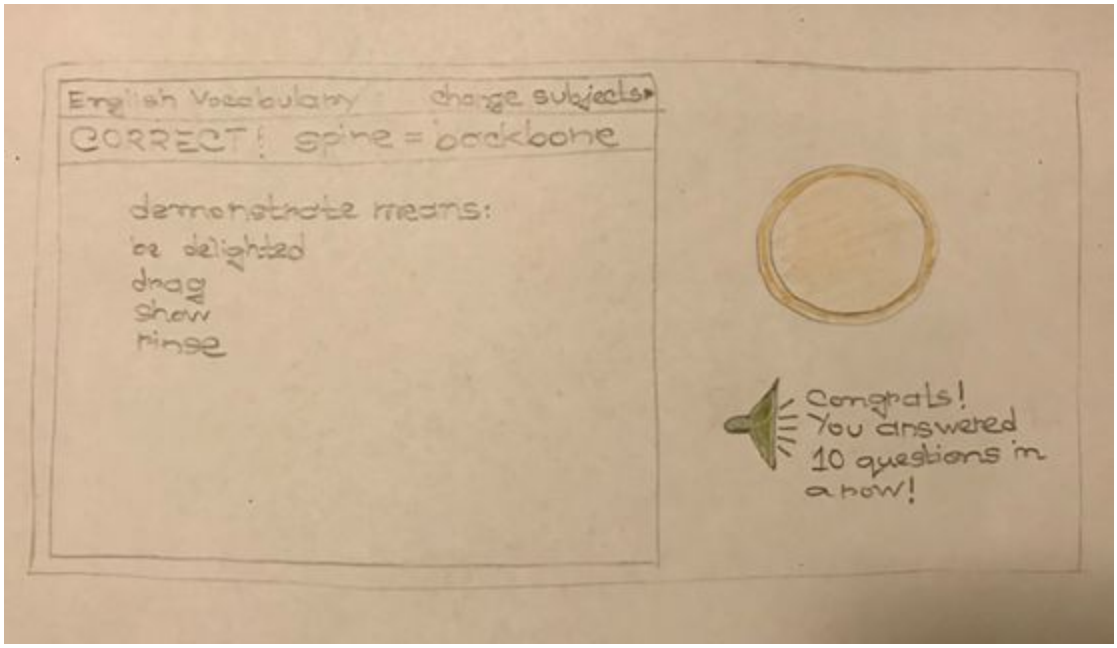
Sketches by Ailyn Gonzalez

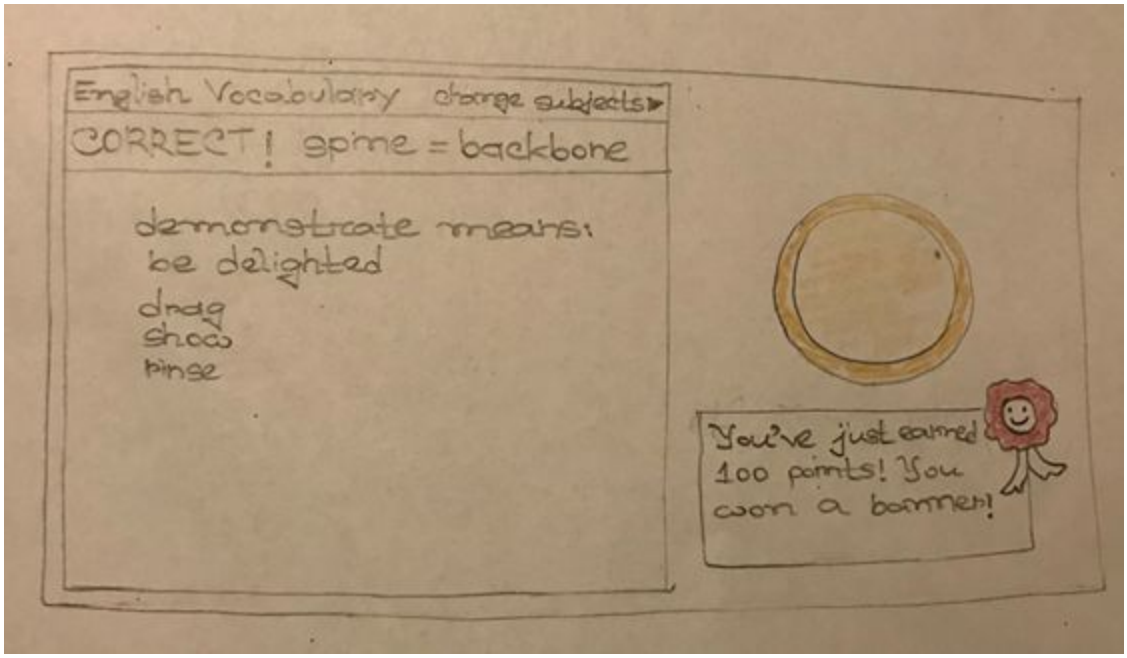


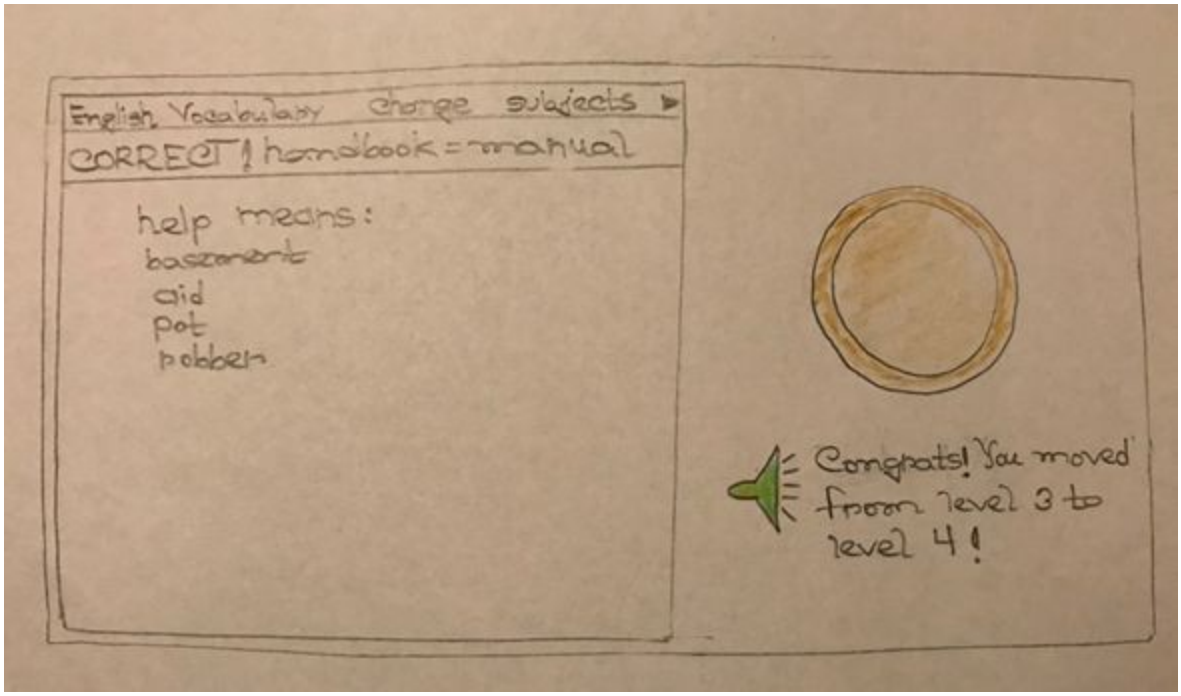

FREE Rice
Login/sign Up
How Freerice works
achalasia means.
AD
AD
Global stats
Difficulty level
Follow Free Rice
F

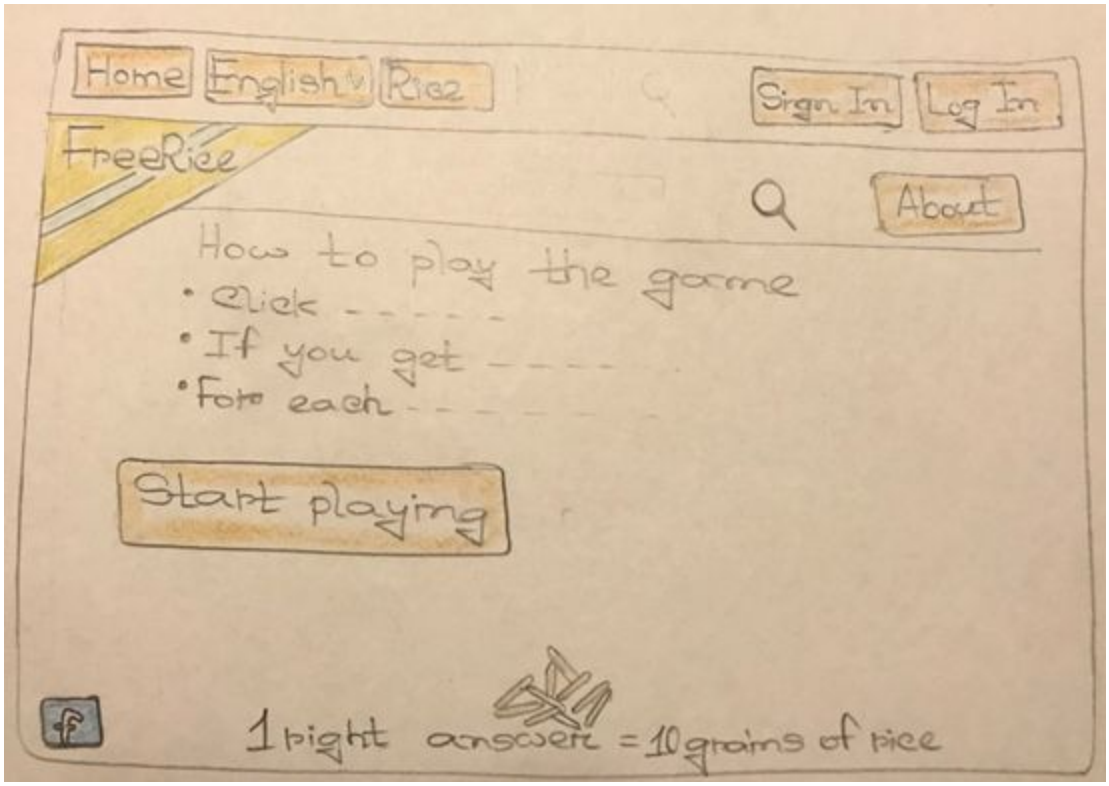


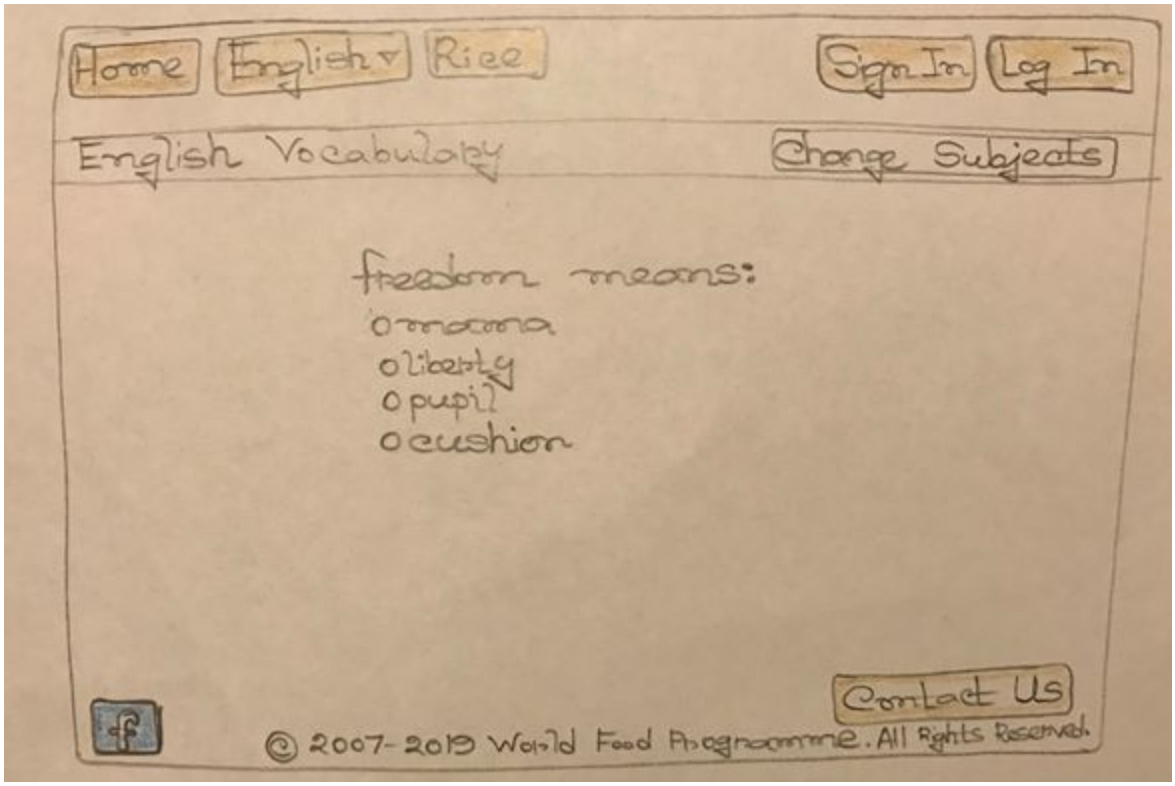
Sketches by Sazeda Sultana




English Vocabulary change subjects ▶
CORRECT! spine = backbone
demonstrate means:
be delighted
drag
show
rinse
You've just earned 100 points! You won a banner!


English Vocabulary change subjects ▶
CORRECT! handbook = manual
help means:
basement
aid
pot
robber
Congrats! You moved from level 3 to level 4!


Home
English
Rice
Sign In
Log In
FreeRice
About
How to play the game
• Click - - - - -
• If you get - - - -
• For each - - - - -
Start playing
1 right answer = 10 grains of rice


Home
English
Rice
Sign In
Log In
English Vocabulary
Change Subjects
freedom means:
o mama
o liberty
o pupil
o cushion
Contact Us
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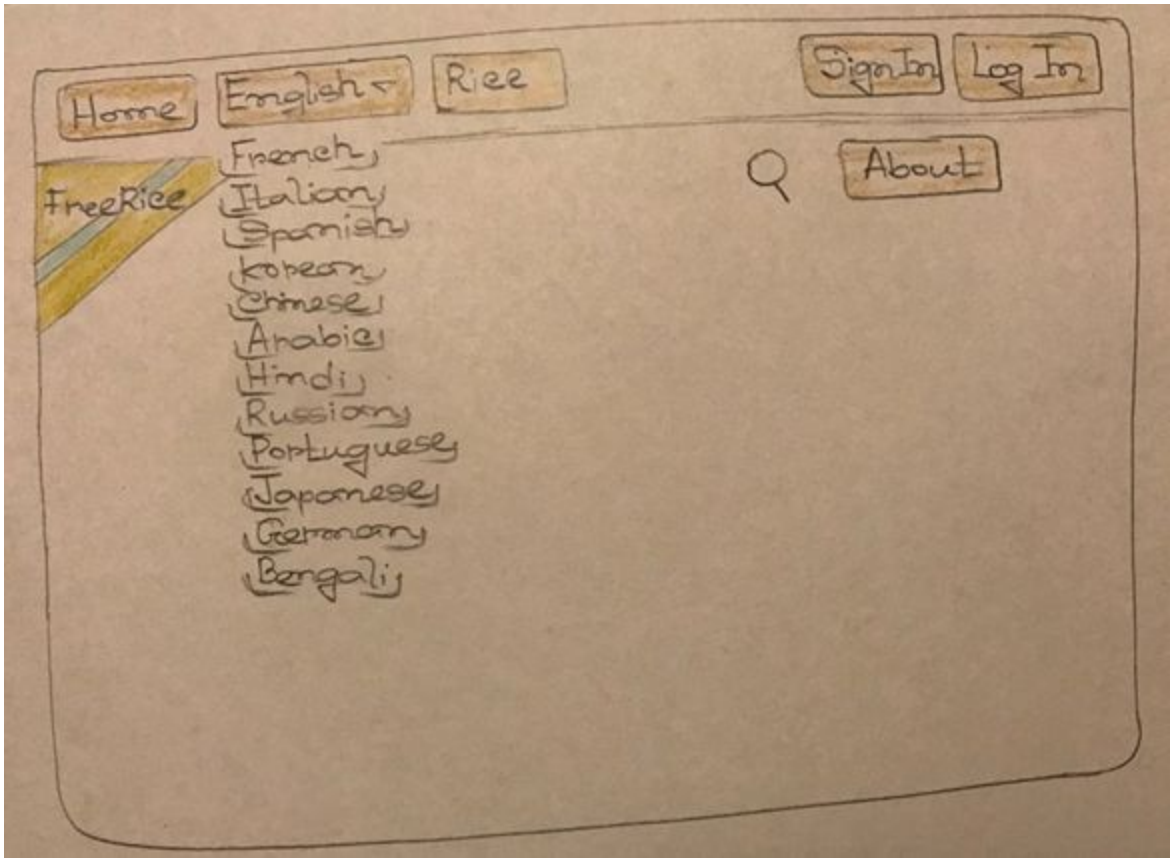
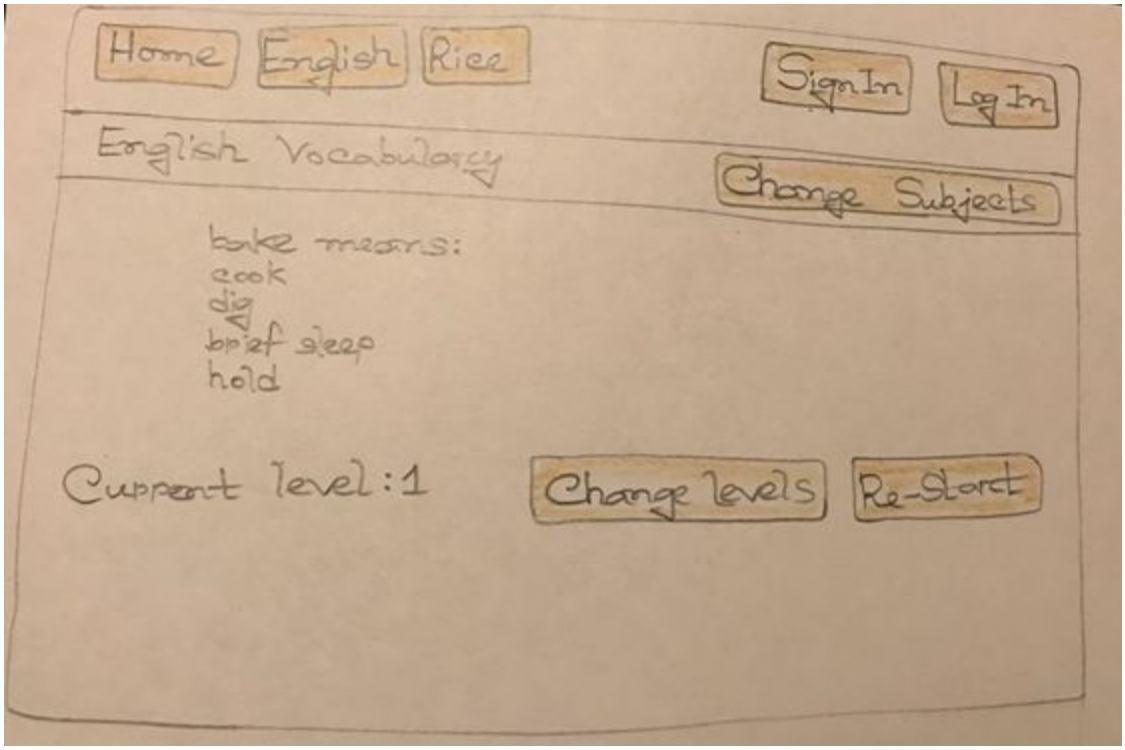
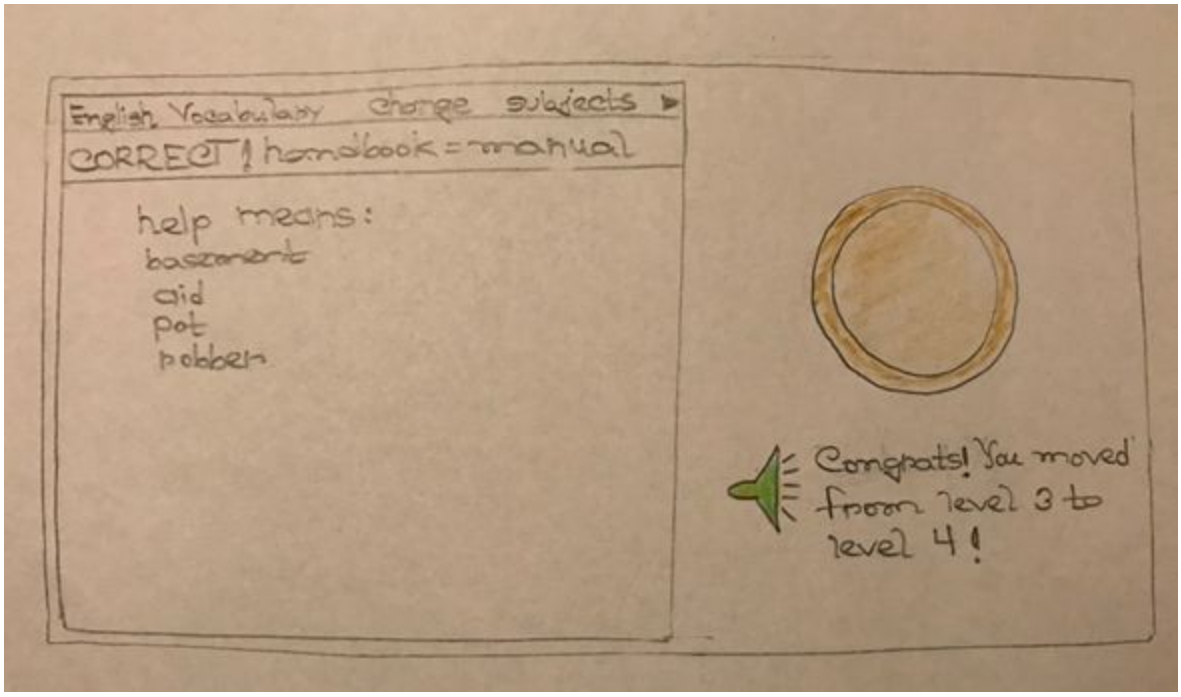
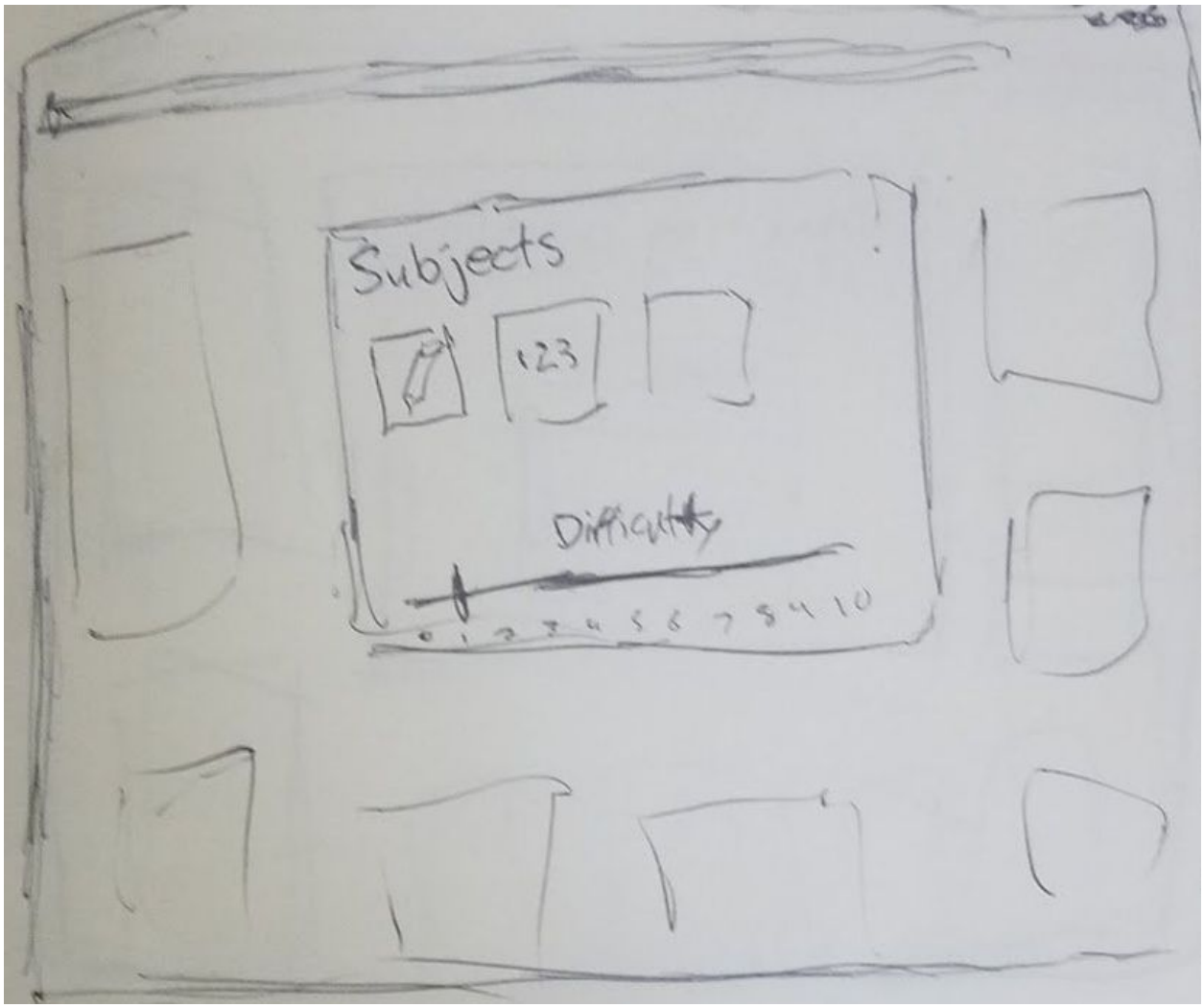
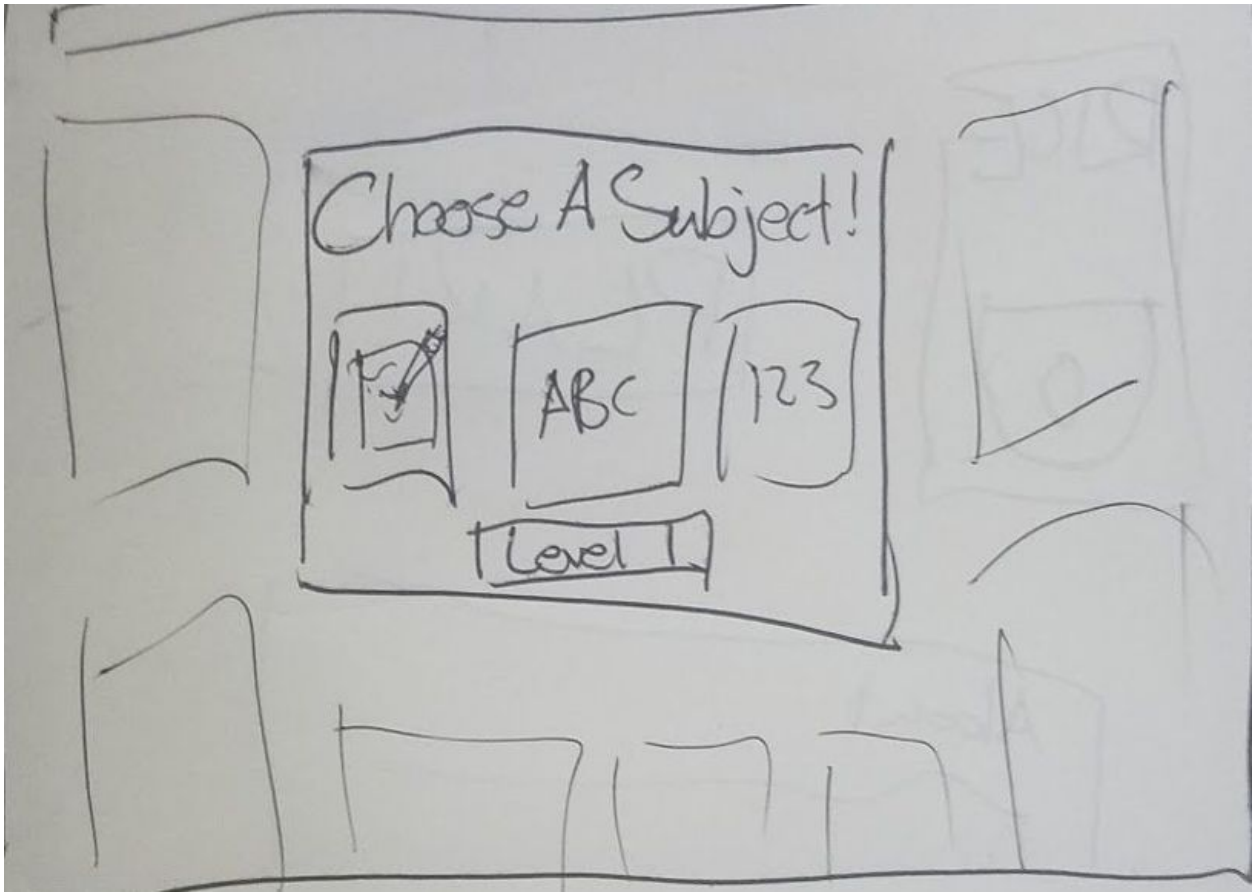

Home
English
Rice
Sign In
Log In
FreeRice
French
Italian
Spanish
Korean
Chinese
Arabic
Hindi
Russian
Portuguese
Japanese
German
Bengali
About

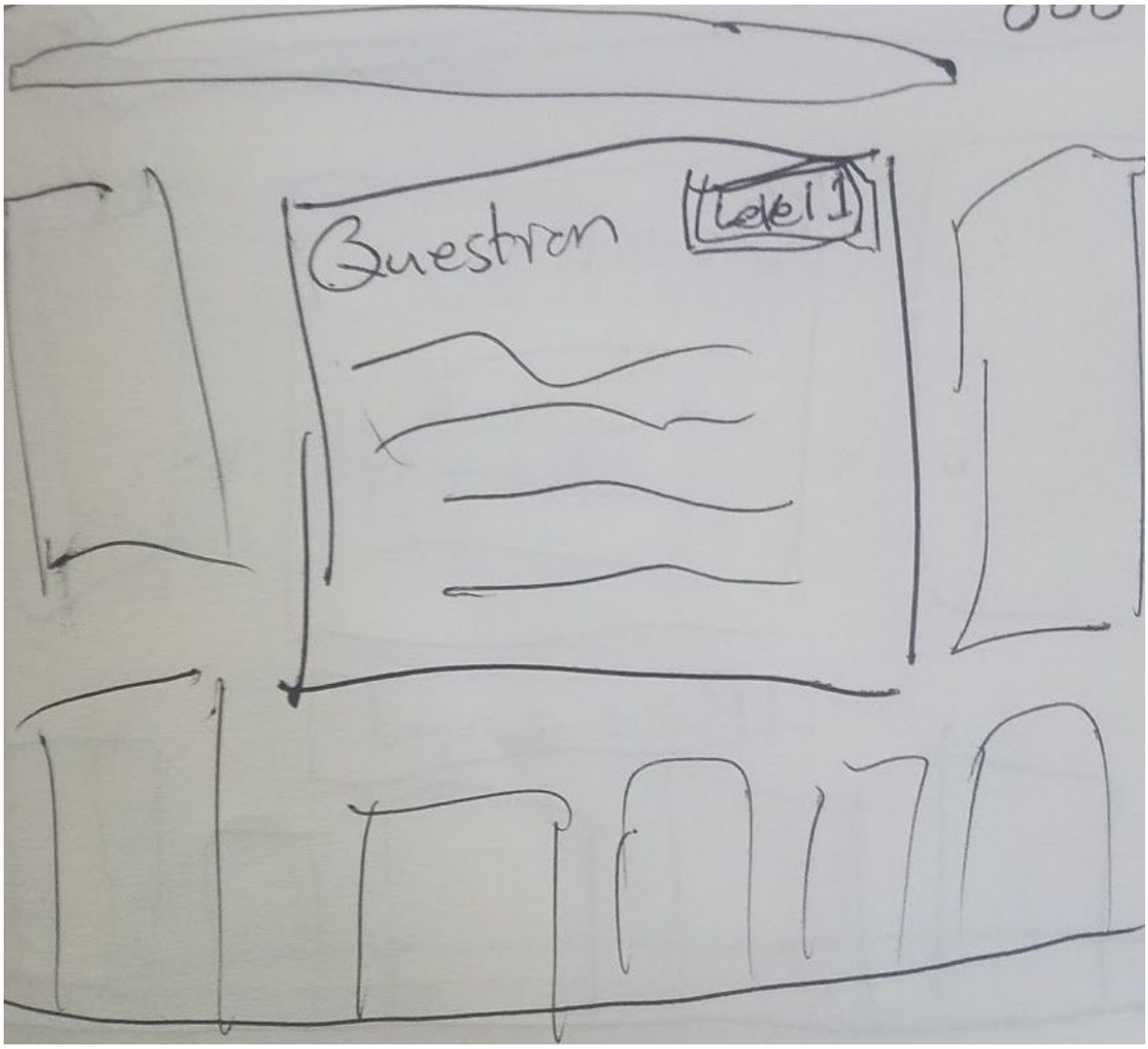

Home
English
Rice
Sign In
Log In
English Vocabulary
Change Subjects
bake means:
cook
dig
brief sleep
hold
Current level: 1
Change levels
Re-Start


English Vocabulary change subjects ▶
CORRECT! handbook = manual
help means:
basement
aid
pot
robber
Congrats! You moved from level 3 to level 4!

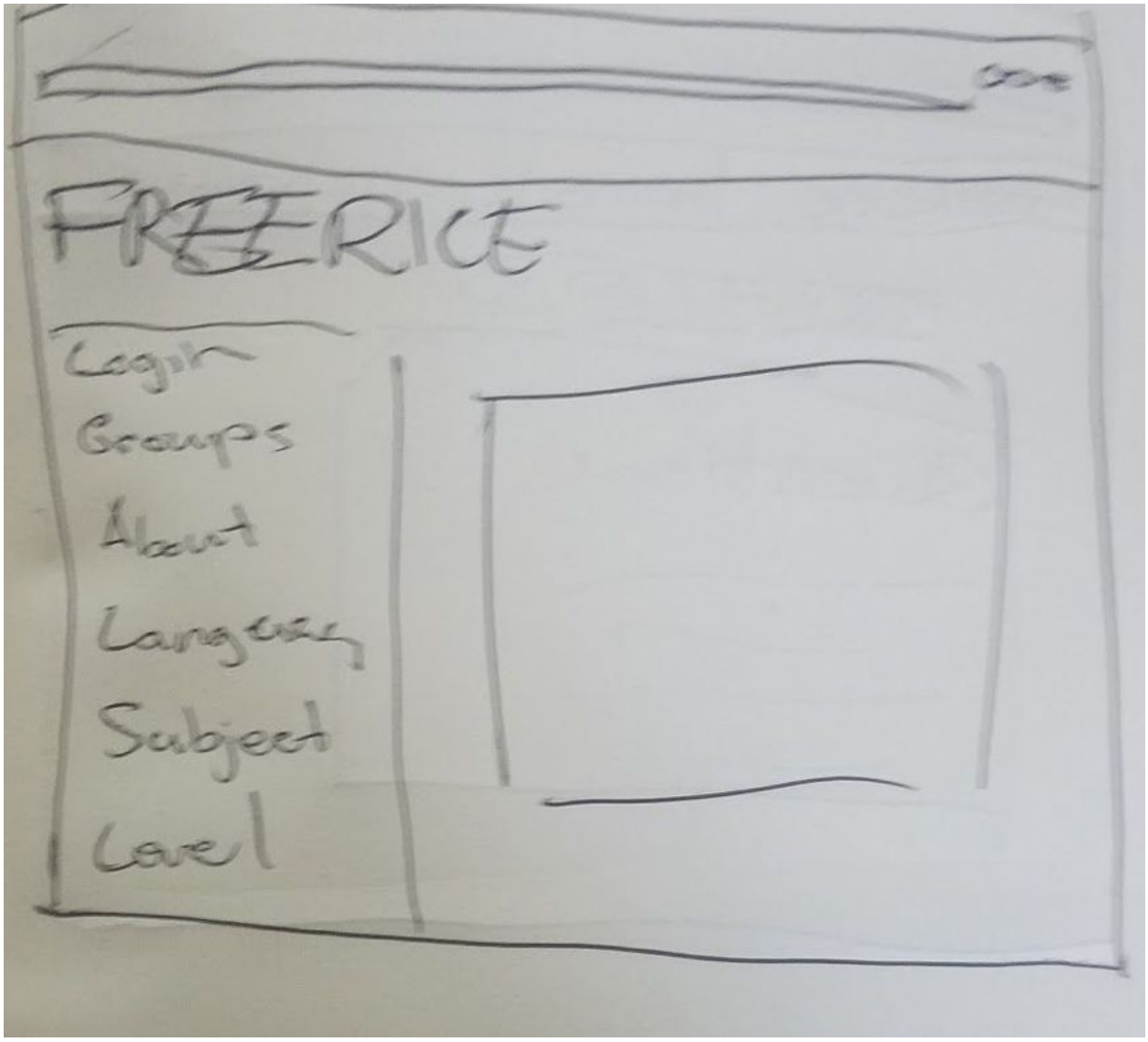
Sketches by Nitin Nallan

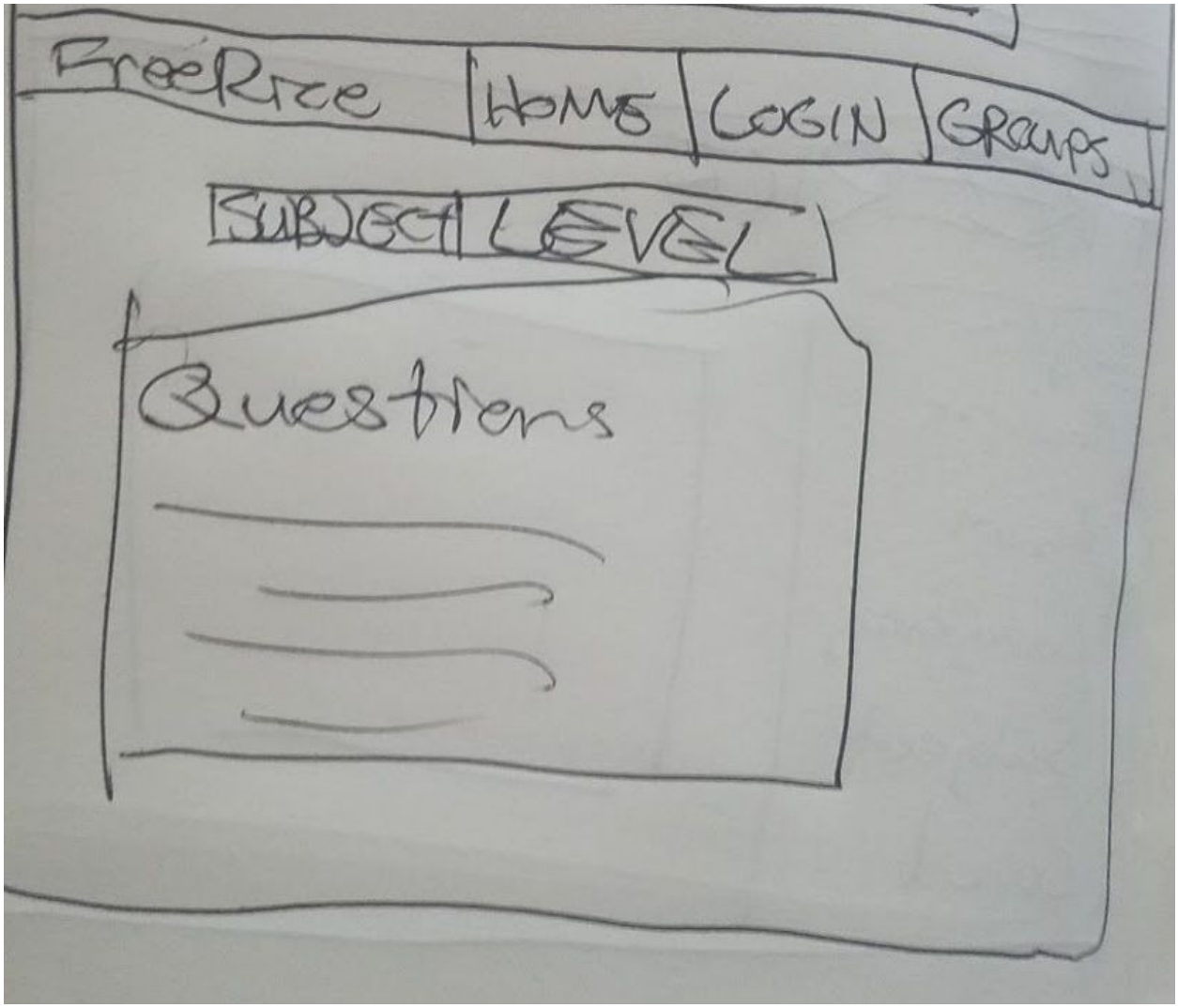


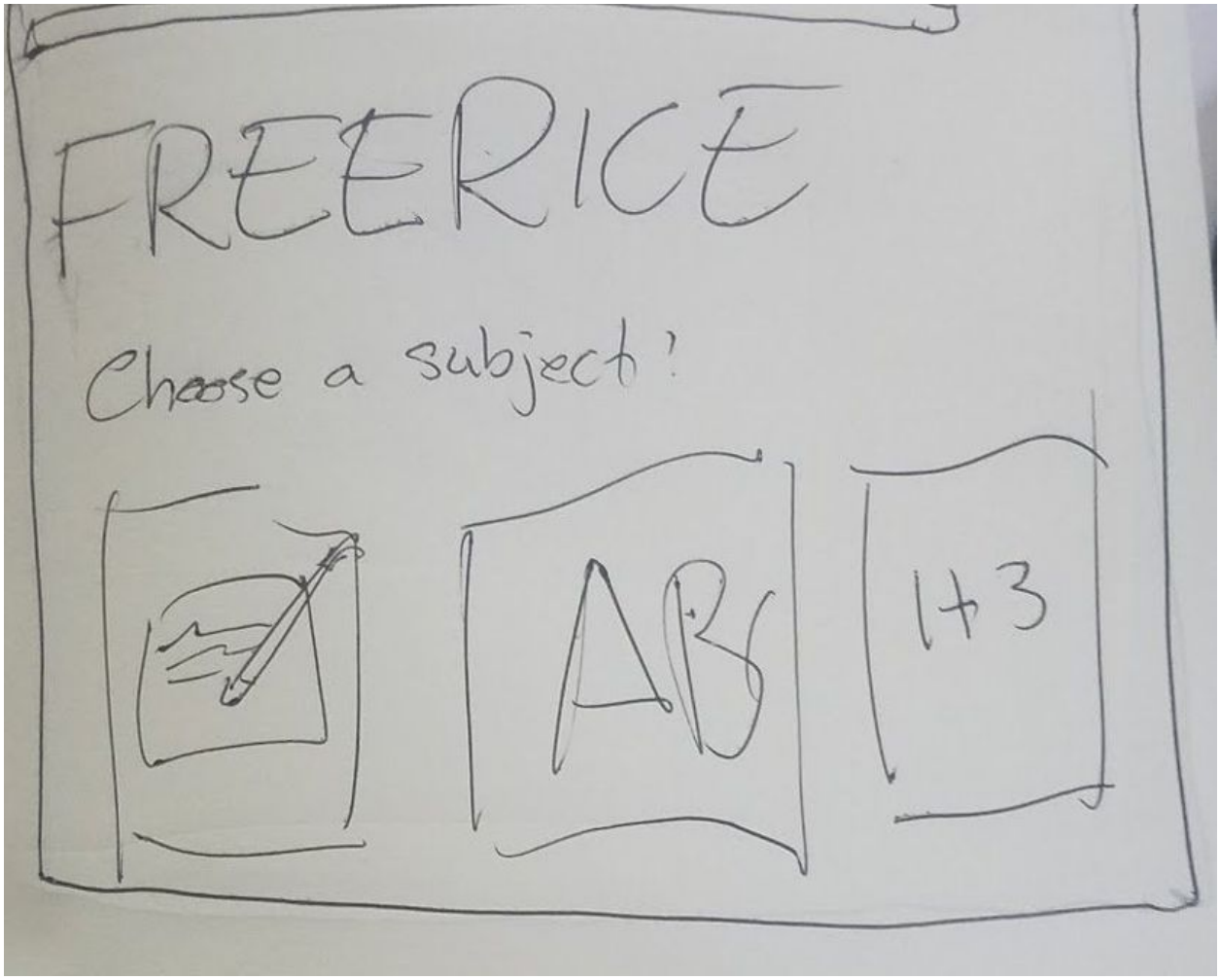

Choose A Subject!
ABC
123
Level 1

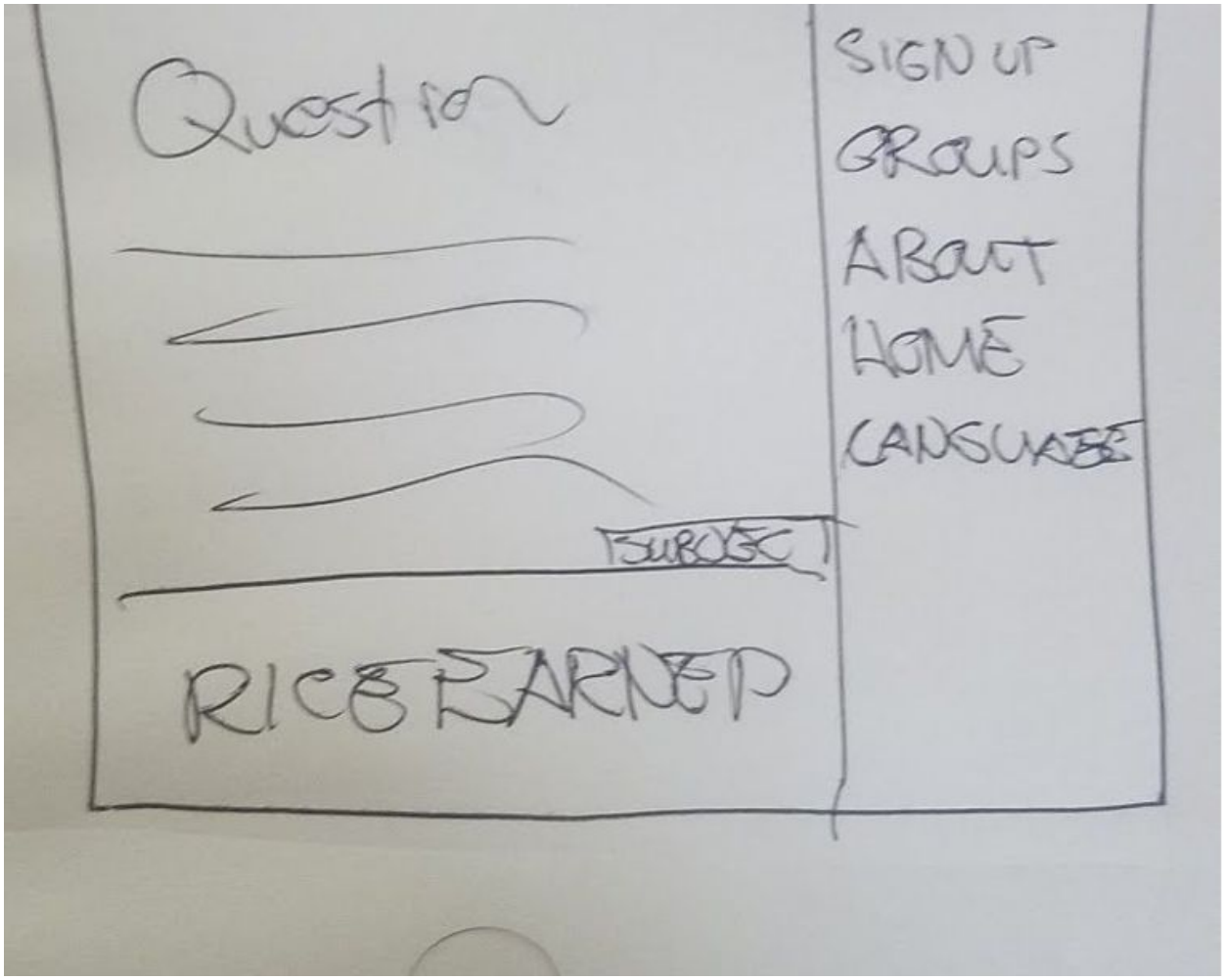

Questron
Label

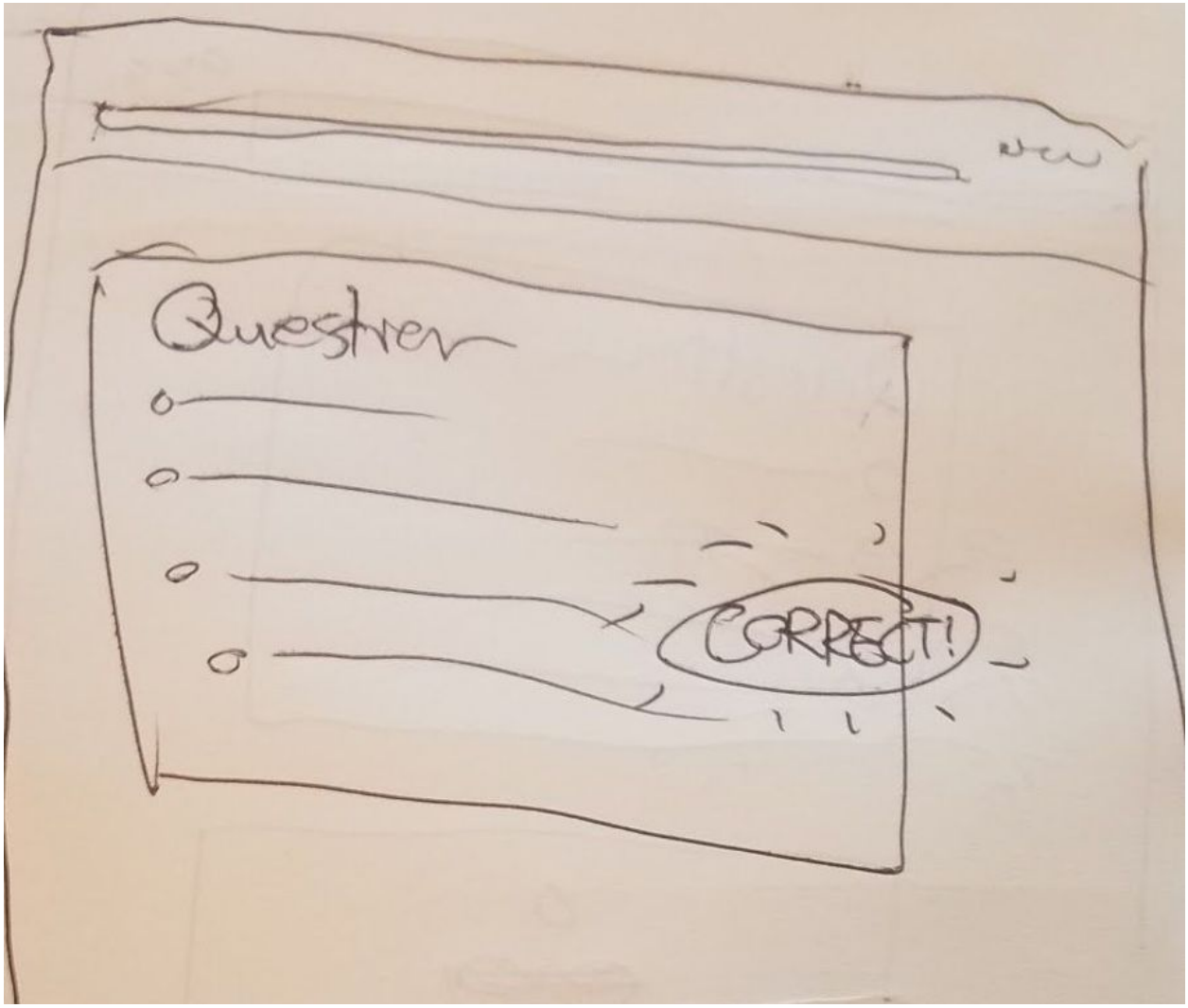
RICE
0
PLAY!
About


FREERICE
Login
Groups
About
Language
Subject
Level


FreeRice
HOME
LOGIN
GROUPS
SUBJECT
LEVEL
Questions


FREERICE
Choose a subject!
ABC
1+3


Question
SIGN UP
GROUPS
ABOUT
HOME
SUBJECT
RICE EARNED


Questrer
CORRECT!