

# HCI: INDIVIDUAL DESIGN CHALLENGE

## Project Outline

For this project Leah was asked to choose a breakdown that she would like to solve. There will be two check-ins and one deliverable required. Once sketching portion is completed, build a prototype, then perform user testing.

- at least one kind of user research or testing
- at least one kind of sketching and/or prototyping

## Objective

For her Individual Design Challenge, she decided on designing a mobile application geared towards children older than kindergarteners that are struggling with learning sight words due to a learning disability. Having a child with an auditory and or a visual processing disability makes sight word learning a challenge. Children with dyslexia for instance, can have extra difficulty learning these high frequency sight words. Sight words are words that usually do not follow standard spelling words, so these words are not easily decodable. It is important to know and recognize these high frequency words to be able to be a quick fluent reader. Given her experience with this topic she has decided to start the sketching process. A few years back she had done quite a bit of research on applications, tips, and tricks with helping to facilitate sight word recognition for her son who has Dyslexia. To this day she still struggles to find age appropriate flash card applications. She has talked to a few other mothers that also have been looking for an app that has less bells and whistles that ultimately detract from the learning task at hand. Most of the applications for sight words are geared to a younger age group and had silly juvenile games. Designing an age appropriate high frequency sight word flash card system is the challenge she will tackle. Following Jake Knapp's sketching process, the first step to sketching was to gather notes. Previous Google searches on Dyslexia lead to a blog, [usabilla.com/how-to-design-for-dyslexia/](http://usabilla.com/how-to-design-for-dyslexia/). Some of the main tools that can be helpful for dyslexics were discussed. For example, the type of font used is crucial because some fonts add hooks to some letters. Other fonts will have the letters to close together, spacing is important. Additionally, the color of the words and even the color of the back ground could be problematic. Black words on a white background can be difficult for some dyslexics when trying to read. Another article important to the research was, learning sight words though "beat". This would be a nice addition to the sight word application adding a new dimension to sight word repetition. The second step in the sketching process was spent on drawing up rough ideas and writing down what ever came to mind after gathering and looking over notes. The third step in this process was to do the Crazy 8s activity. This is a short exercise that will build on the idea sketches form the previous step. Take about one minute per sketch and try to pinpoint what exactly might work well in this mobile application. After the Crazy 8s, you move on to the last step, which is the Solution Sketch. These will be the best ideas from the last step, with an even more in depth look at some of the ideas. Pictured below.

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Ideas



Crazy 8s



Solution Sketch



## Scenario

It's a Monday afternoon; the kids are just getting in the door from a long day at school. It is Sean's third week of 2nd grade. As he walks to the fridge to grab an after school snack, his mom asked where are his new sight words for the week. He groans as he walks back to his backpack to retrieve the new stack of sight words and holds them out to her. His mom asked him to cut out the new words and add them to the stack from the previous weeks that he has not yet mastered. She reminds him that sight word flash cards are an important repetition tool for learning new words. But in the case with Sean, sight words are the bane of his existence. The reason for this is because Sean has a learning disability that affects his ability to quickly identify these words. What usually takes a 2nd grader about week to learn the sight word list, it takes Sean about a week to learn maybe one or two of these words. As the weeks go by, the flash card stack gets larger and larger and the paper cards get tattered and torn. Sean's mom is also tired of caring about the plastic baggy even where they go, she thinks there must be an easier way to have all these sight words in one place. She heads the app store on her phone and types in sight words. She found many over complicated word game apps or apps geared to kindergartners. Among all of the other apps she sees Sight Word Flash Cards with a good rating and it looks fairly simple, she downloads it. When the app opens up she is meet with three buttons, where she can click the word button to add words. There is also an option to add her own voice for a playback if her son need help on a word if she is not around while he is practicing. There a two modes to the mobile app. Flash card mode where you randomly get shown a word from the word list or the metronome mode where a list of words will be displayed and the metronome beat will turn on and with every beat you say each word in order of the bold faced multi-colored word going in different patterns to help with repetition. Both mother and son are much happier with this simplistic version of sight word flash cards and no longer have to cut out, keep track of and carry around those horrible stacks of cards again.

## Storyboard

