

Problem Statement

How might we design a mobile app that empowers people to learn new vocabulary?

Objectives & Goals

The Challenge

Do you keep coming across new words in your workplace or general life? My challenge in this project was to bring to life a vocabulary-learning app called Sparki that helps people learn new words in their daily school and work lives.

The Process

The first step was to understand my audience. How? I started by interviewing my potential customers to understand their current frustrations and what solutions or methods they were currently using. I then conducted several competitor analyses to understand the current market and see what solutions other competitors were offering. After gathering and analyzing all the information, I took the condensed information and created a user persona to help keep my target audience in mind as I started to design a solution. Along the design process, I added information architecture methods to analyze tasks my users would try to accomplish in my app. The final stage was to sketch and prototype my solutions based on the information analyzed from my research stage.

The Goal

The goal was to present a prototype of a word-learning app that helps people retain words in a customized and organized way. I completed this project to show my competence in using UX methods to present the first iteration of a word-learning app. All the work presented was done by me and approved by my mentor and tutor at CareerFoundry.

Tools Used

Figma | Miro | Google Slides

Project Phases

Overview
User Research
Competitor Research
User Needs and Personas
User Flows and Task Analyses
Wireframing and Prototyping
Usability Testing
Implementing Changes

Phase 1 - Discover

Exploratory Research | User Interviews | Competitive Research

My first step in the project was to research. I conducted interviews to understand how potential customers were learning new words and what challenges they faced.

Interview Goal

- Find out how often users encountered new words
- What they found the most challenging when learning new words
- What mode of learning appealed to them most
- Their ideal length of study time
- What stood out the most when using a new tool for studying new words

Side note: In a real-life project I would be communicating with stakeholders at this point to get a clear idea of the business/project goals and objectives. For this project, I communicated with my tutor to understand the project details and goals.

Exploratory Research

During the research stage, I interviewed several participants to understand how potential customers were currently learning new words and what challenges they faced. After the interviews, I analyzed the information into three categories - doing, thinking, and feeling. I recorded suggestions and pain points to inform the next stage of my design.

Analysis of the Interviews

Competitor Research

Duolingo | Memrise | Rosetta Stone

Phase 2- Define

User Personas | Task Analysis | User Flows

Persona

I created a persona based on the user interviews to help guide the design as it progressed. Personas are a simple and memorable way of keeping our users and their goals in mind as we continue the design process.

- User stories
- Problem Statement
- Hypothesis Statement

Sparki's Persona

User stories | Problem statement | Hypothesis statement

Phase 3 - Ideate

User Personas | Task Analysis | User Flows

Before bringing out the whiteboard or paper to sketch a solution, I used information architecture to analyze tasks my users would accomplish on my app. Using the task analyses, I created user flows to map out the entry point, steps to complete the task, and the success criteria. This step helped me sort out the flow and organization of my app before I started drawing solutions and interactions for the user to accomplish their tasks.

Task analyses & user flows

Phase 4 - Design and Test

Paper Wireframes | Low and Mid-Fidelity Prototypes

Brainstorming a Solution

I started turning my user stories, task analysis, and user flows into solutions by sketching wireframes on paper. Low-fidelity wireframes sketched out on paper are a fast way to iterate on ideas and designs. Once I finalized my low-fidelity wireframes, I continued to refine my design in Figma.

Wireframes

Hand-drawn paper wireframes

Wireframes

Low-fidelity wireframes built using Figma

Phase 4 - Testing the Design

Usability Testing | Usability Report

The next stage was to test my first iteration with potential customers to check the usability and flow of the app. Updates were made to the mid-fidelity prototypes to include content and images in preparation for usability testing. I put together a test script and plan and started recruiting participants. Throughout the test, I had participants complete several tasks and recorded observations and comments to analyze later.

Usability Test Plan

Usability Test Results

Usability Test Report

Caption

I used Jakob Nielson's Severity Rating to rank the issues found during the usability tests

Jakob Nielsen's rating scale

- 0 = I don't agree that this is a usability problem at all
1 = Cosmetic problem only: need not be fixed unless extra time is available on project
2 = Minor usability problem: fixing this should be given low priority
3 = Major usability problem: important to fix and should be given high priority
4 = Usability catastrophe: imperative to fix before product can be released

Analyzing and Implementing Changes

After conducting usability tests on my prototypes, I prioritized the usability issues found during the tests and implemented the new changes into my prototypes.

Viewing Quizzes

Problem

Users found it difficult to locate the quizzes

Steps to find a quiz

1. Navigate to the folder tab
2. Click the folder to find the quiz located in the folder

Solution

1. Allow users to view quizzes first

2. Make the folder view a second option

3. The icon was changed

Make Quiz Button

Problem

Several testers found making a new quiz hard because the plus button wasn't clear enough.

Solution

Change the icon button into a text button.

Developing the new quiz feature

Making new quizzes is an important feature of the app. I added a new tab so users could quickly and easily add new quizzes from anywhere in the app.

Final Thoughts

Throughout this project, I learned many things about my target audience, analyzing information, and prototyping a solution. Here are a few key takeaways I learned throughout the process.

- Feedback at an early stage is vital to keeping my design on track.

- Finding the right balance between detailed work and keeping up with the deadline can be tricky, and is something I am working on.

- Good design takes many iterations. The first iteration I completed was just the beginning.

Next steps

Throughout this project, I completed the first rough iteration of a language-learning app. This is just the beginning. Listed below are a few next steps I would take if I were to continue refining this design.

- Refine the quiz-making feature by adding dictation and screenshot options.

- Develop the interactive aspects of the app to keep users engaged and motivated to reach their learning goals.

- Collaborate with stakeholders and other team members to find creative ways to incorporate subscriptions and paid upgrades to the app.