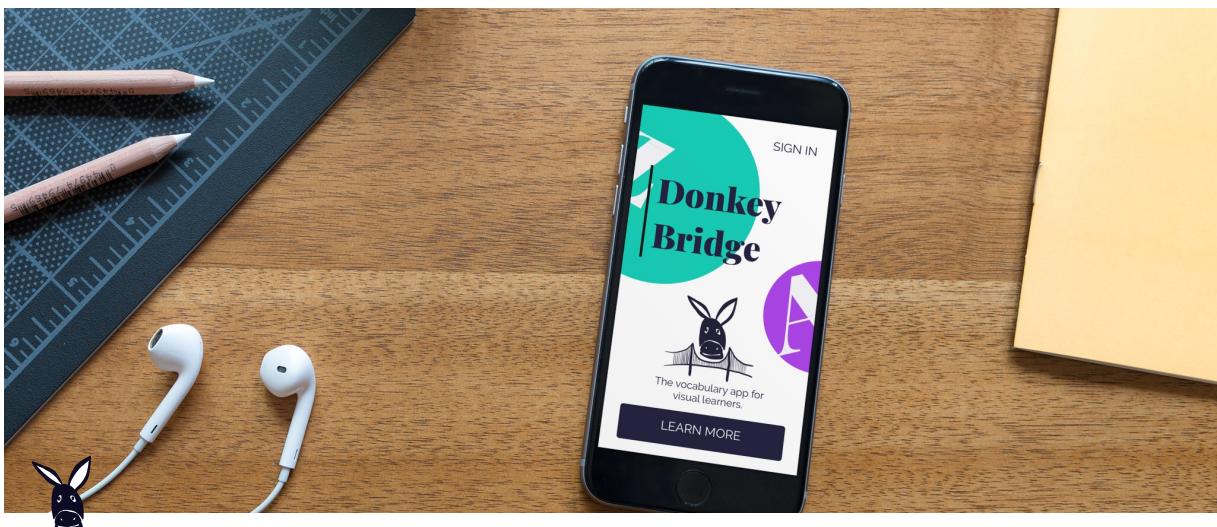


Find the best view of my case study online:

<https://www.notion.so/DONKEY-BRIDGE-2f68750ef0ab4a25ac5386eb672c8798>

or view this pdf:



DONKEY BRIDGE

A vocabulary app for visual learners.

Introduction

This app concept was created during my UX Design studies with CareerFoundry in spring 2020.



Challenge: How might we help visual learners to memorise new vocabulary quickly on the go.



Goal: Creating a vocabulary learning app which supports the easy memorising of vocabulary in a very visual way.

My Role: UX/UI Designer

Primary Stakeholder: CareerFoundry UX course

The project was curated as a part of CareerFoundry's UX program.



Process Steps:

- Competitor Research
- User Research (User Interviews)
- User Persona
- Task Analysis
- Crazy 8's Technique
- Low Fidelity Prototyping
- User Testing
- High Fidelity Wireframes



Tools used:

- Voice Recorder App
- Videocamera App
- Whimsical
- Pen&Paper&Postits
- Marvel App
- Adobe Comp App (Ipad)

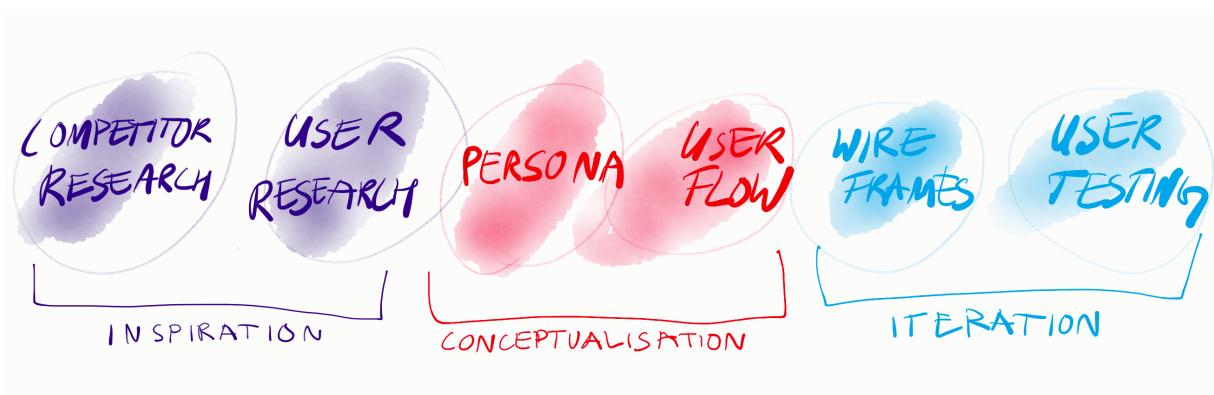
Design Process

My design process contained three phases:

• Inspiration

• Conceptualisation

• Iteration



Inspiration Phase:

There were two fields I wanted to gain more information: my competitors and my users. First I did a competitor research in order to know, how other vocabulary learning apps taggling the learning process.

Competitor Research

There are many vocabulary apps out there. I decided to pick three, which approach the vocabulary learning challenge differently. In this way I could discover strengths and weakness' of my competitors.



Research Goals:

- discover strengths & weakness' of three competitors
- finding opportunities of improvements
- noting well designed user experiences



Challenges: Many apps have limited functionalities, if you are not going for a premium account. As I didn't buy premium memberships, my research could only explore the free versions, which was enough to get an idea of basic functionalities.

PONS

DROPS

MAGOOSH

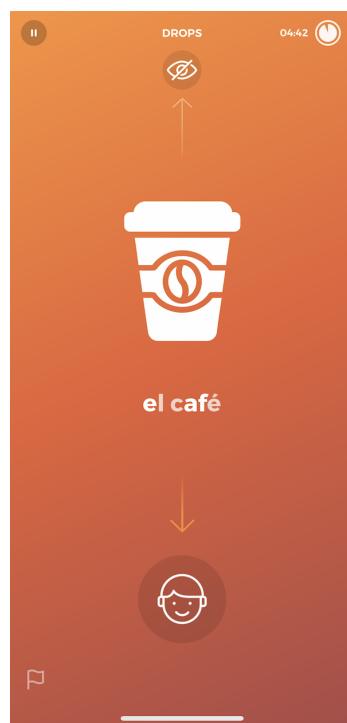


Pons is a german media publisher and known for its dictionaries in 32 different languages.

Strengths:

- an introduction to the app is offered without signing up
- the app has 5 different interactive learning modes
- process indicators give a good orientation during the learning

Weaknesses:



Drops is a language learning app created in Estonia. It aims to make learning vocabulary a fun experience through colorful visuals and animations.

Strengths:

- colourful UI with illustrations looks fun
- loud pronunciation
- many different vocabulary topics to choose from

Weaknesses:



Magoosh is an app, designed to prepare you for the TOEFL-language test. The app functions are pretty basic, because it is only an extension of their website.

Strengths:

- process bars keeps you on track
- example sentences gives you context
- simple functionalities keeps you focused

Weaknesses:

- | | | |
|--|--|--|
| <ul style="list-style-type: none"> the sign-up fields are the first thing I perceive, which repels me a bit (later I discovered a introduction-link) poor onboarding (only text boxes) | <ul style="list-style-type: none"> overstimulation by many colours act distracting many animation during learning mode slows the process down and annoys | <ul style="list-style-type: none"> no splash screen no onboarding UI-failures: buttons not recognisable as buttons only one austere learning mode with no changes |
| <ul style="list-style-type: none"> the mothertongue wasn't asked and the whole UI copy is in german (which will be a problem, if you don't speak german yet) | <ul style="list-style-type: none"> no control over the learning mode | |

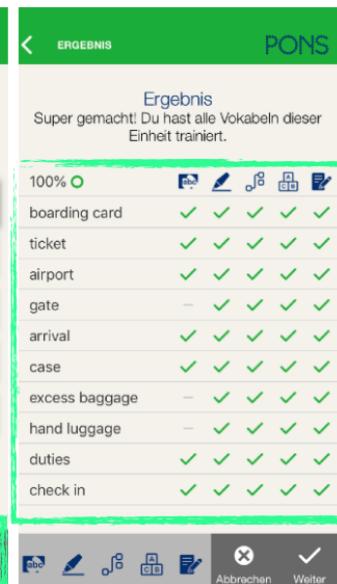
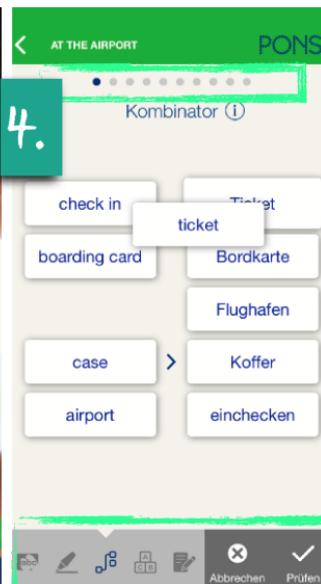
▼ Look into my Competitor Analysis for PONS in detail

Pons is a german media publisher and known for its dictionaries in 32 different languages. Here is a more detailed list of pros and cons of the vocabulary learning app of PONS. Please compare my numbered list with the numbers on my images.

PROS

- an introduction to the app is offered without signing up
- the app has 5 different interactive learning modes
- the interactive scratching-off-the-answer is fun
- process indicators at the top and navigation bar at the bottom give a good orientation during the learning
- it offers a demo lecture to test the app, without account creation needed
- an overview of my learned vocabulary helps me to keep track on my learning progress

1. on boarding button



5. demo version

demo version

6. overview of result

CONS

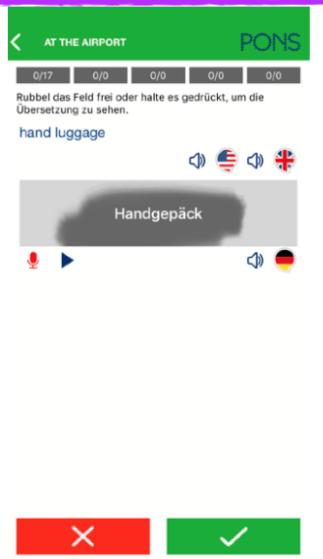
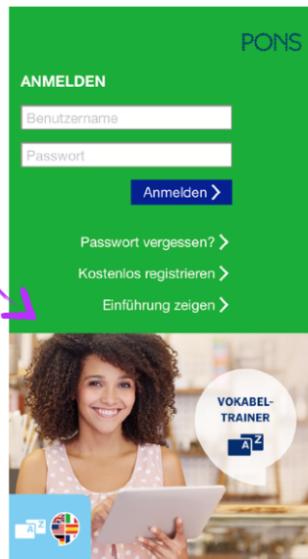
- the app has no splash screen which introduces the brand and creates trusts

2. the sign-up fields are the first thing I perceive, which repels me a bit, then I discover a introduction-link
3. the introduction (onboarding) happens only with text boxes in low contrast text (white on light green), no supporting imagery, fu
4. little UI failures: progress indicators are disconnected from text-content
5. harsh button labelling "cancel"
6. the mothertongue wasn't asked and the whole UI copy is in german, which will be problem, if you don't speak german

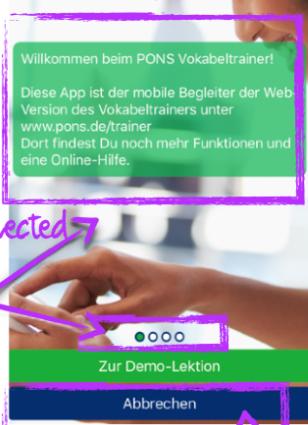
the whole app starts in german,

1. No Splash Screen

2. Signup-Screen



3. on boarding



4.

5. cancel

6. no option to change settings

in the demo version



What I have learned from the competitor analysis for my app:

- Paying attention to a good onboarding with the option to choose the mothertongue right at the beginning
- giving control to the learner over the process and learning mode
- focusing on user goal by avoiding over-design and over-functionalities

User Research

I wrote a short interview script in order to get to know the user, who is actively learning a language ideally with an app.



Research Goals:

- finding out the motivation why my user learns vocabulary
- discovering the situations/environment in which the user learns vocabulary
- unveiling challenges when learning a new language



Interview Setup:

I could interview 3 women, who are actively learning vocabulary, and also had experience using a vocabulary app. To synthesize the interview answers, I sorted the answers into feelings, doings and thinkings. Then I could highlight common answers, which created the base of my persona in the next phase.

▼ View my interview script

QUESTIONS

- Wann hast du zuletzt eine fremde Sprache gelernt?
- 1) When was the last time you've learned a foreign language?
- Was ist deine Motivation eine neue Sprache zu lernen?
- 2) What is your motivation to learn a new language?
- Wie hast du neue Vokabeln gelernt?
- 3) How did you learn new vocabulary?
- Welche Schwierigkeiten hattest du dabei?
- 4) Which difficulties did you have when learning new vocabulary?
- In welcher Umgebung lernst du am optimalsten(unoptimalsten)?
- 5) Which surrounding is the best (and which is the worst), when learning new vocabulary?
- Wie würdest du jetzt eine neue Sprach lernen?
- 6) If you could choose now: Whats your favourite way of learning a new language?

▼ View an excerpt of my interview synthesis

DOING

- I couldn't choose how I want to learn at the moment: silently or speaking out loud.
- At work we also created calendar dates for practicing polish together.
- Different learning methods in the app I often didn't understand.
- Sadly I didn't activate the notification function of the app - I guess that would help me to learn more regularly.

THINKING

- I realized that my knowledge of vocabulary is limited.
- Because I need to speak a lot English at work I am much more motivated to learn more vocabulary
- There are dialogues which got British humor. It's like meeting with friends and making fun of each other.
- It would be quite cool to repeat vocabulary everyday, which you've just learned.
- At work I often think „I need to write down or record that word, and the app will remind me to practice it.“

FEELING

- I feel uncomfortable when speaking English to my colleagues with simple phrases
- What I like about the Babbel app: it got a sense of humor.
- I felt a bit uninformed, when I started using the Babbel app
- I am embarrassed if I practice speaking aloud when I am not alone
- I feel motivated if I am learning with someone

- There are many timeslots when I could learn vocabulary: in the public transport or at work in between.

Quotes of interviewees



"At work I often think „I need to write down or record that word which I just heard, and save it to my learning list.” — Beatrix



"The App needs to remind me to learn vocabulary."— Sarah



"I often remember vocabulary which I learned in a certain situation when looking at something. Its like a memory hook. I need the visual stimulation. I think I am a visual learner." —Stefanie



→ I could find out that my target user prefers to learn vocabulary here and then in between, like checking their instagram feed. They also love **the imagery connected to words**. Having a **quick way for looking up new words** and saving them into their flashcards was also a mentioned need.

Now that I've collected a lot research data, the conceptualisation phase can start.

Persona

From my interview findings I could create a persona, which helped me to keep my focus on my target user in the following process.

Anna

30, office manager in Berlin



Needs & Goals

- quickly look up unknown vocabulary and save it to the flashcards
- improving my english communication skills for work
- get reminders to learn vocabulary
- feel entertained while learning

Frustrations

- vocabulary from learning apps had no reference to my daily life- forgot them quickly
- gets easily distracted, because being bored by learning theoretically
- lacking the motivation to start learning for myself

Based on my persona needs, I decided to focus on the following three functions in my user flows:



the ability to **look up a new words** easily, and **save** them



a **notification function**, that initiates a short



a **visual connection** for each vocabulary, to increase the

directly to the learning list

learning session in between

entertainment and the memorability for a visual learner

User Flow

One of my persona needs is to look up an unknown word. I analysed the user flow, which would start with the **entry point**:

- **user listens/read unknown word**

and ends with the **success criteria**:

- **user saves new word+translation to her/his flashcards.**

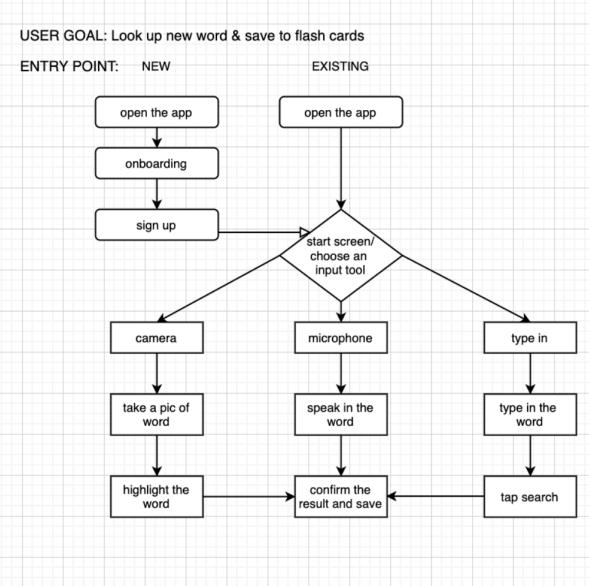
TASK ANALYSIS 1

ENTRY POINT: listens/read unknown word

SUCCESS CRITERIA: saving new word+translation to her flashcards

1. reads unknown word within a text
2. takes her smartphone
3. opens the vocabulary app
4. taps on camera symbol
5. takes an image of the text
6. marks the word
7. taps on “show translation”
8. adds the word to her flashcards

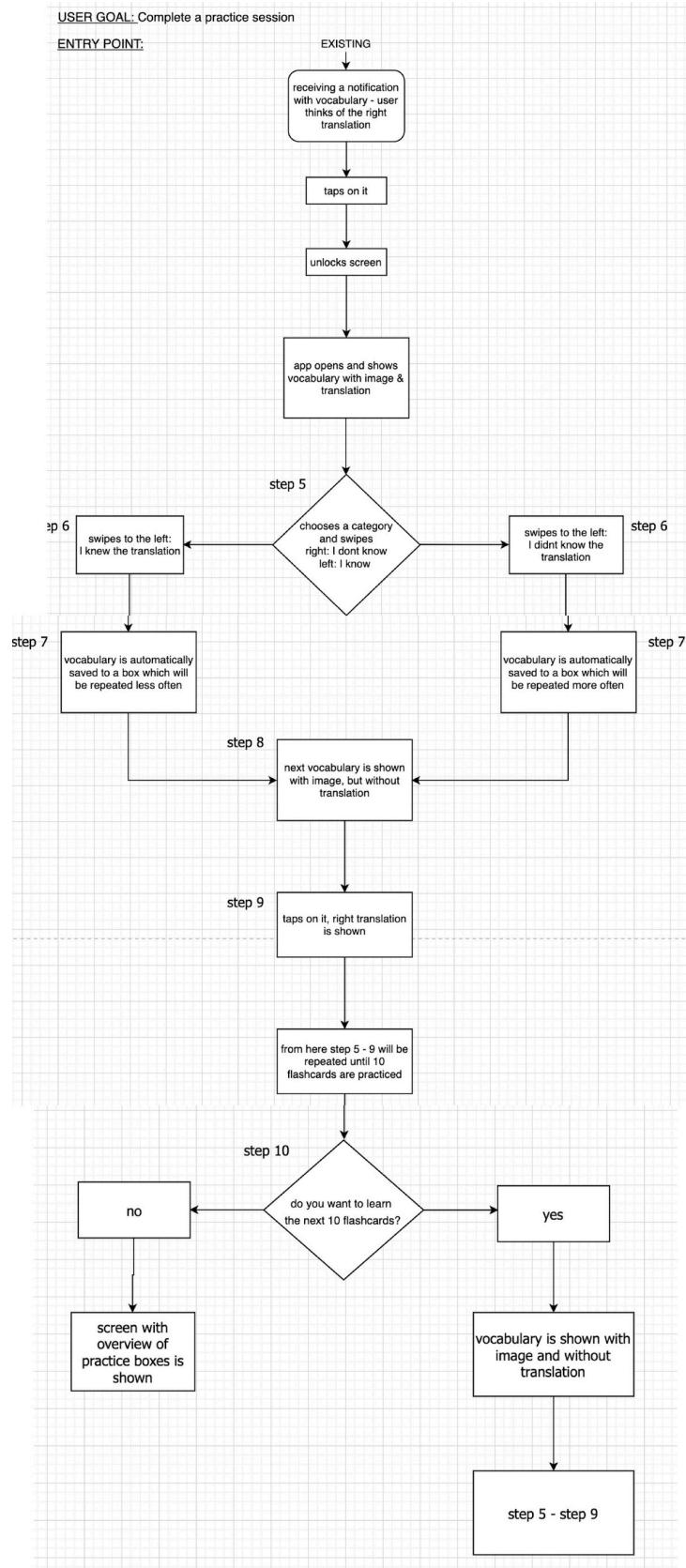
USER FLOW 1



▼ **View my second user flow**

Entry Point: Viewing a notification of Donkey Bridge on the smartphone

Success Criteria: Completing a practice session of 10 flashcards

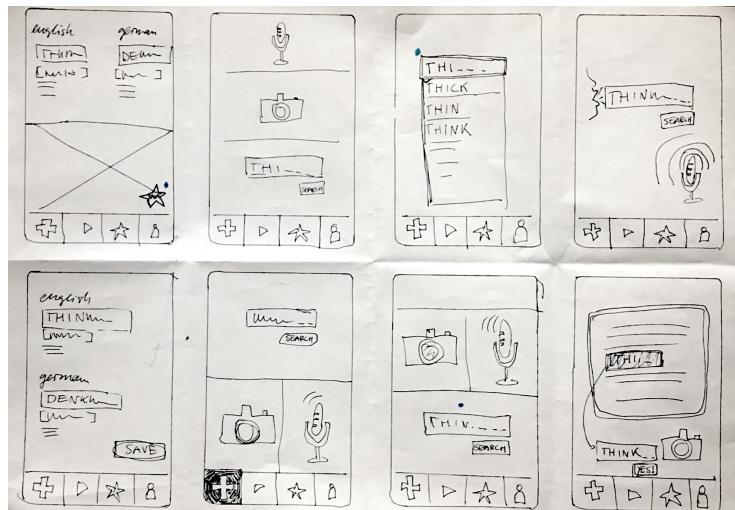


Wireframes

Before jumping straight into wireframing, I used the crazy 8's technique to ideate different screen solutions for my app functions.

Crazy 8's technique

When using the crazy 8 technique you spend only 1 minute per sketch. The goal is to push beyond your first idea, frequently the least innovative, and to generate a wide variety of solutions to your challenge. The image on the left shows some ideas how the app enables you to search for a word.

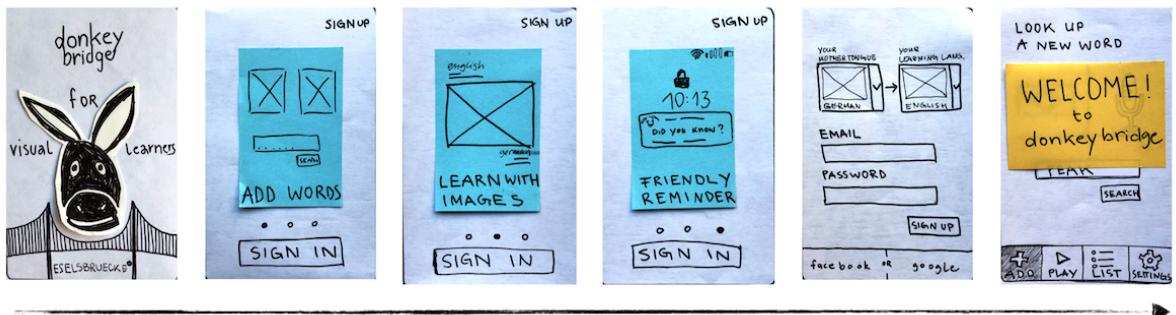


Here I ideated 8 different screens for searching and saving new vocabulary



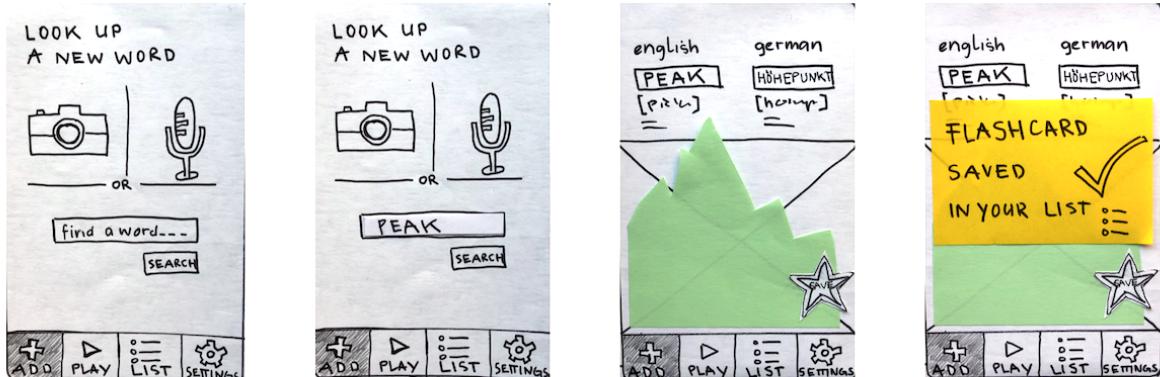
I used pen, paper and postits to sketch out my user flows, which I could connect later on in the marvel app as clickable prototype.

Onboarding:



Splash Screen → Onboarding: 3 features presented → Sign Up → Welcome Popup

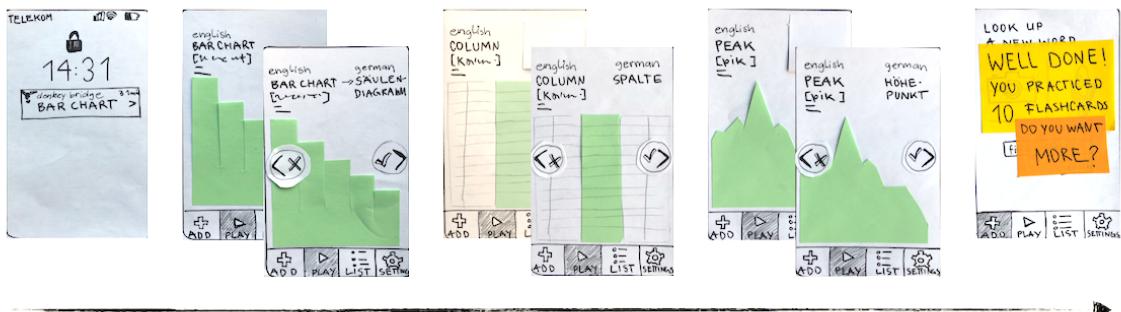
Looking up a new word and save it.



Type in word → Press "search" → view flashcard with image and translation & press save → Saved

Tapping on notification and start a learning session.

Tapping on the flashcards reveals the german translation, after that you can swipe right for "I knew" or swipe left for "I didn't" know".



Tapping on word query → Viewing right translation & Swiping left or right → Viewing next word query..

User Testing

Testing goal:

- find out if the navigation makes sense to the user
- gather feedback if the features are valuable to the user
- discover challenges in user flow and UI

Setup:

I did three usability testings. My testers had a smartphone with the opened prototype in their hand. I explained shortly what I am going to test, and that there is nothing they could do wrong. I asked them kindly to speak out loud every thought and feeling, because that is what I am interested in. I recorded the smartphone-screen with a videocamera, in order to analyse every movement and spoken word.

To keep the testing short and focused, I created four tasks for the tester. I turned these tasks into scenario tasks, which helped me to moderate the session smoothly and set the scene for the tester.



Direct tasks —> Scenario tasks

- 1** **Task: Learn the main features of the app and sign up.**

 Scenario: You just downloaded “donkey bridge” and you want to get know the features of the app.

- 3** **Task: Practice some flashcards.**

 Scenario: On your way home, you find some spare time in the public transport and as you look on your phone “donkey bridge” has sent you a notification - yes, you want to learn some vocabulary on your way home.

- 2** **Task: Look up a new word and save it to your vocabulary list.**

 Scenario: You were just in a meeting with new clients, and you heard that one new word very often: peak. You need to look it up and save it to learn in future.

- 4** **Task: Find your account settings.**

 Scenario: You reach home and you are tired by watching on the small phone screen. You decide to download the vocabulary app on your tablet. But with which email- address did you create your account? You want to check your profile data in your app “donkey bridge”.

Testing results and revision

From my recordings I noted down all questions, misunderstandings and challenges, marked them with a severity ranking (1=small error, 4=very severe error), and noted down first ideas of solving them.

In the image below you can see two examples how I resolved issues.



Issue: startscreen doesn't show the app function



Solved: split the screen in an splash screen, and a more contentful startscreen with subheader "the vocabulary app for visual learners"

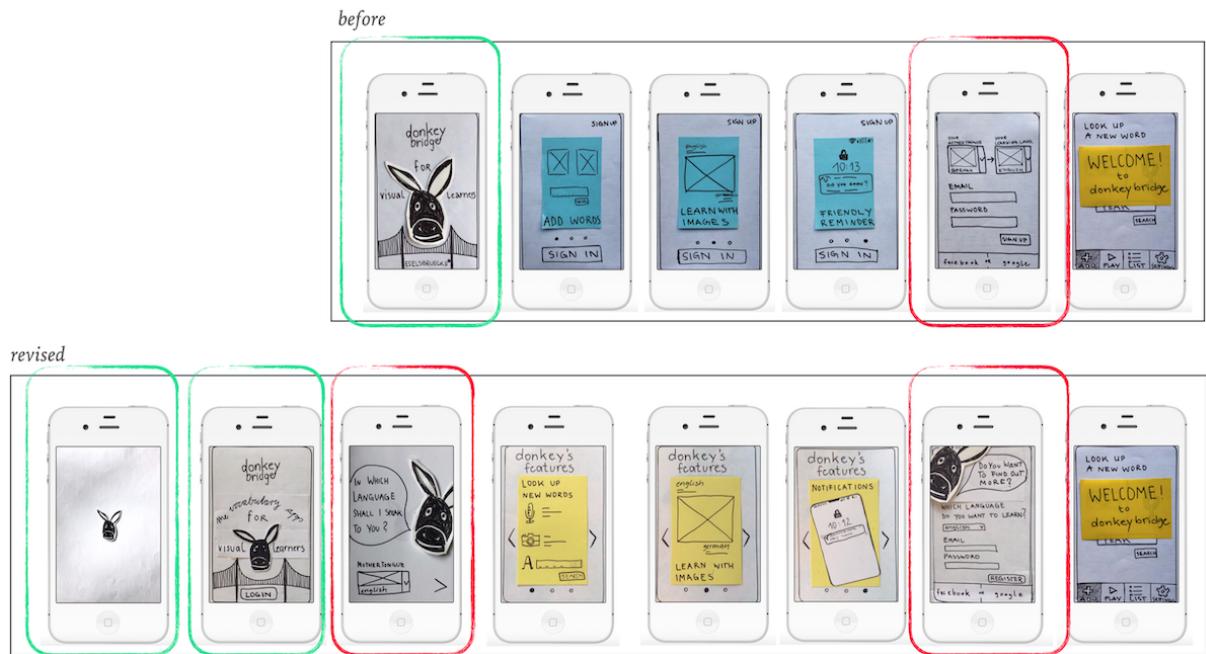


Issue: Onboarding might not be understood without setting the ui-language before



Solved: Add a screen before the onboarding, which asks for the mothertongue. The onboarding language will change accordingly.

I added screens to give the user focus on one info per screen.



▼ View the short usability test report

USABILITY TEST REPORT

TASK #	OBSERVATION	Organize and summarize notes and quotes.	SEVERITY	RECOMMENDATION	Write down tangible next steps for prototype.
1	Onboarding screens are not understandable, sign up/sign in-buttons during on boarding are irritating	3		take off the sign/up buttons from the on boarding, and create new screen with sign up buttons after on boarding	
1	back buttons were missing and browser back button was used, probably the swipe functions of the on boarding pictures weren't obvious	2		make the orientation bar of the pic-gallery bigger, adding back/forth arrows and probably the focus will be better if sign-up buttons are taken off	
1	splash screen was a start screen at the same time, start screen doesn't say what's the app about	2		the splash screen can be reduced to the logo, and the screen after will be a start screen with the word "vocabulary app" - and the mother tongue-setting can be added	
2	a sound-function for listen to the right pronunciation was missing on the flashcards	1		a loudspeaker button can be added on the flashcards	
2	arrows during the learning mode are understood as back/forth-buttons	2		different/clearer design of "I know" - "I didn't know" buttons - UI-matter	
3	notification was not understood as a word query at first	2		the notification can clearly ask a question like "Do you know the word "chart bar"?	
4	easily solved			nothing need to be changed, only a link need to be added to settings-button on the "well done"-screen (now you need to click "add" first)	
4	when seeing the settings, user wonders why the mother tongue is asked from the beginning on	3		the mother tongue should be asked right after the splash screen, as the UI language should be understandable for every user	

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, so should be given high priority
 4 = Usability catastrophe: imperative to fix this before product can be released

Feel free to walk through my revised Prototype:

<https://marvelapp.com/prototype/6i61a71>

Style Guide

Donkey Bridge is an app for visual learners, who are also interested in art and design. That made it interesting to create a short style guide for a fun looking app.

Goal:

- create a look n'feel for a visual appealing app
- set the base for a high fidelity prototype

Typography

Donkey Bridge – Playfair Display Bold

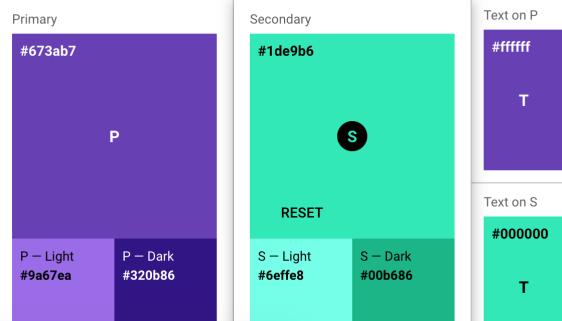
Vocabulary App for
Visual Learners

– Raleway Regular

Colors

I was looking for a primary and

secondary color, which are bold and give a playful look. I used the color tool from material.io.



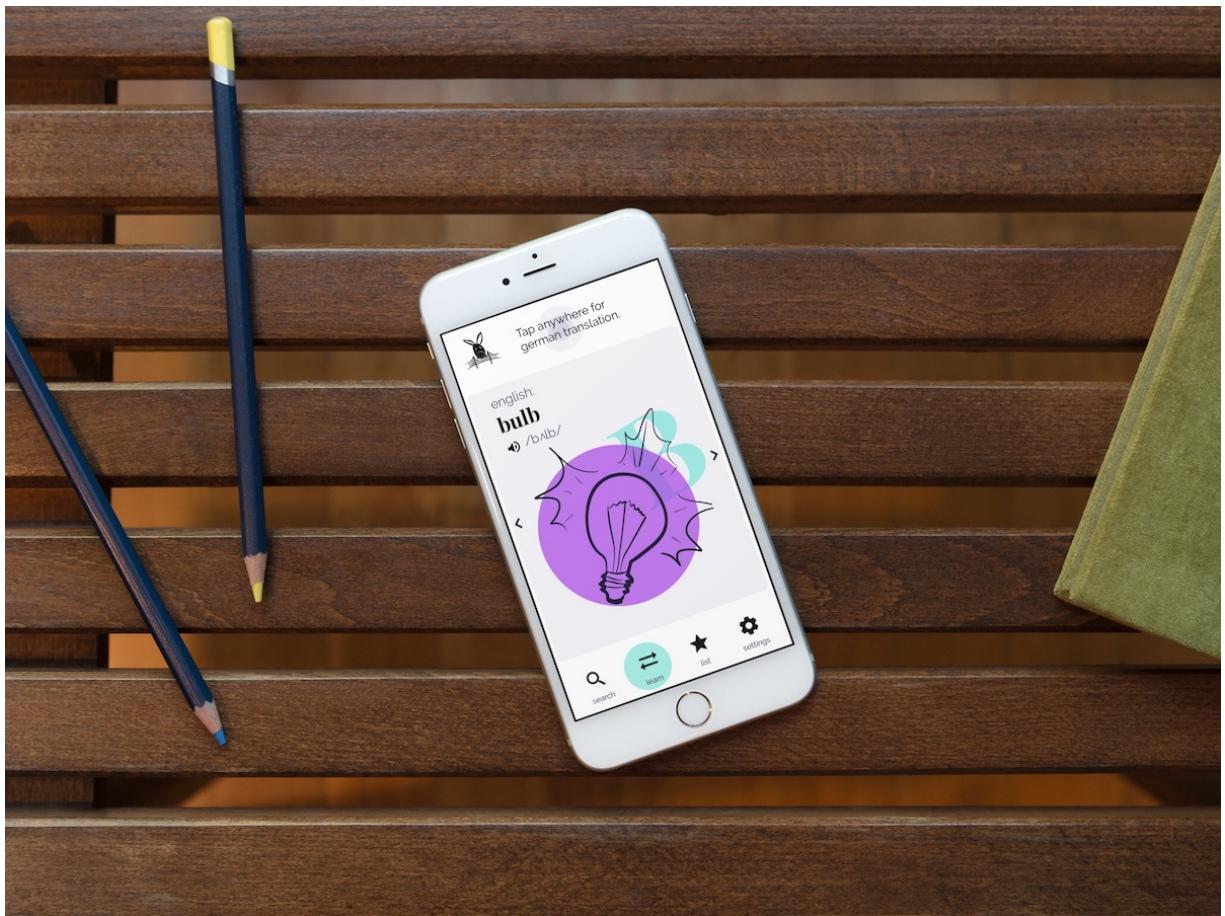
UI Elements

The icons for my navbar and the whole app are from the material design's icon set.

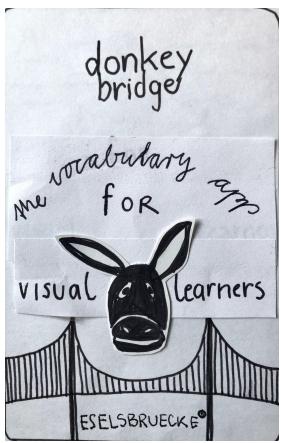


High Fidelity Screens

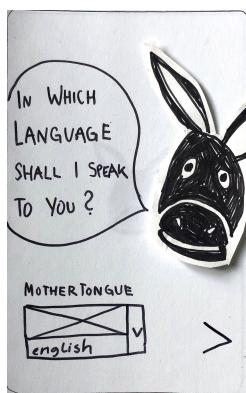
The look is clean and white. The colors and images draw the attention to the learning process. Little hint texts give an introduction how to use the app.



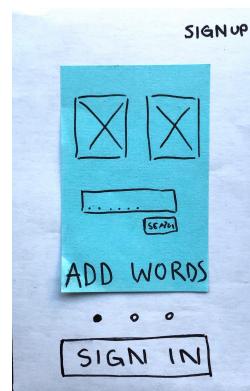
Splash screen



Pick
mothertongue

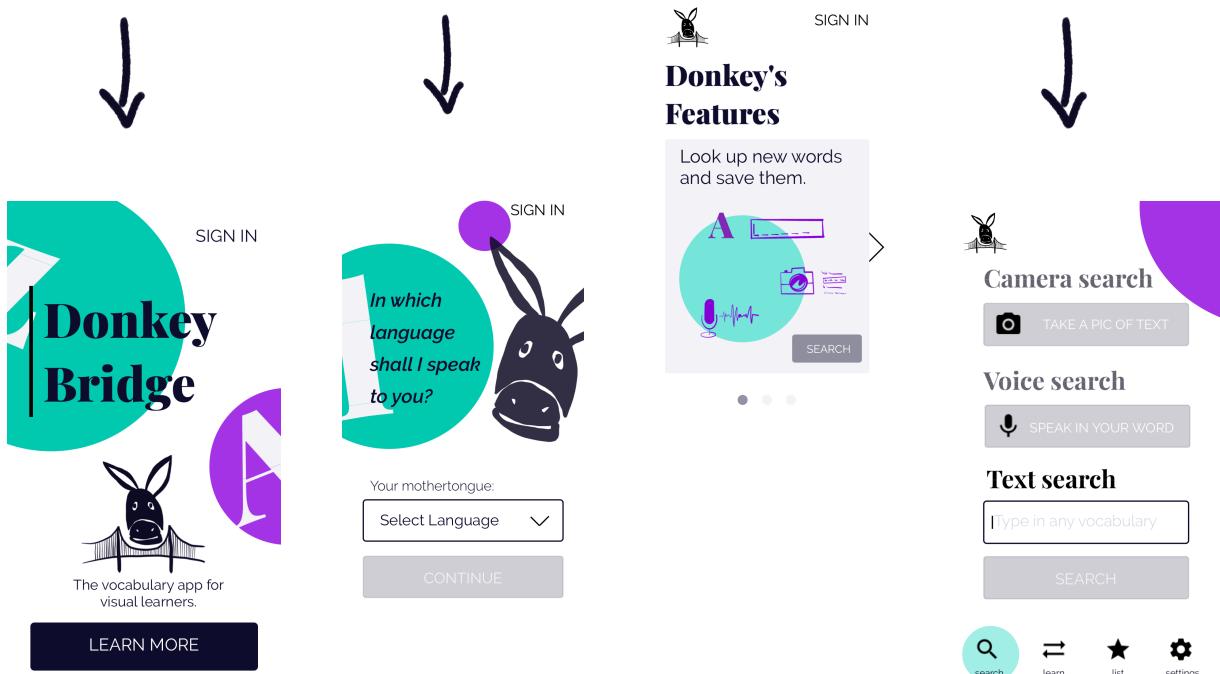


Onboarding



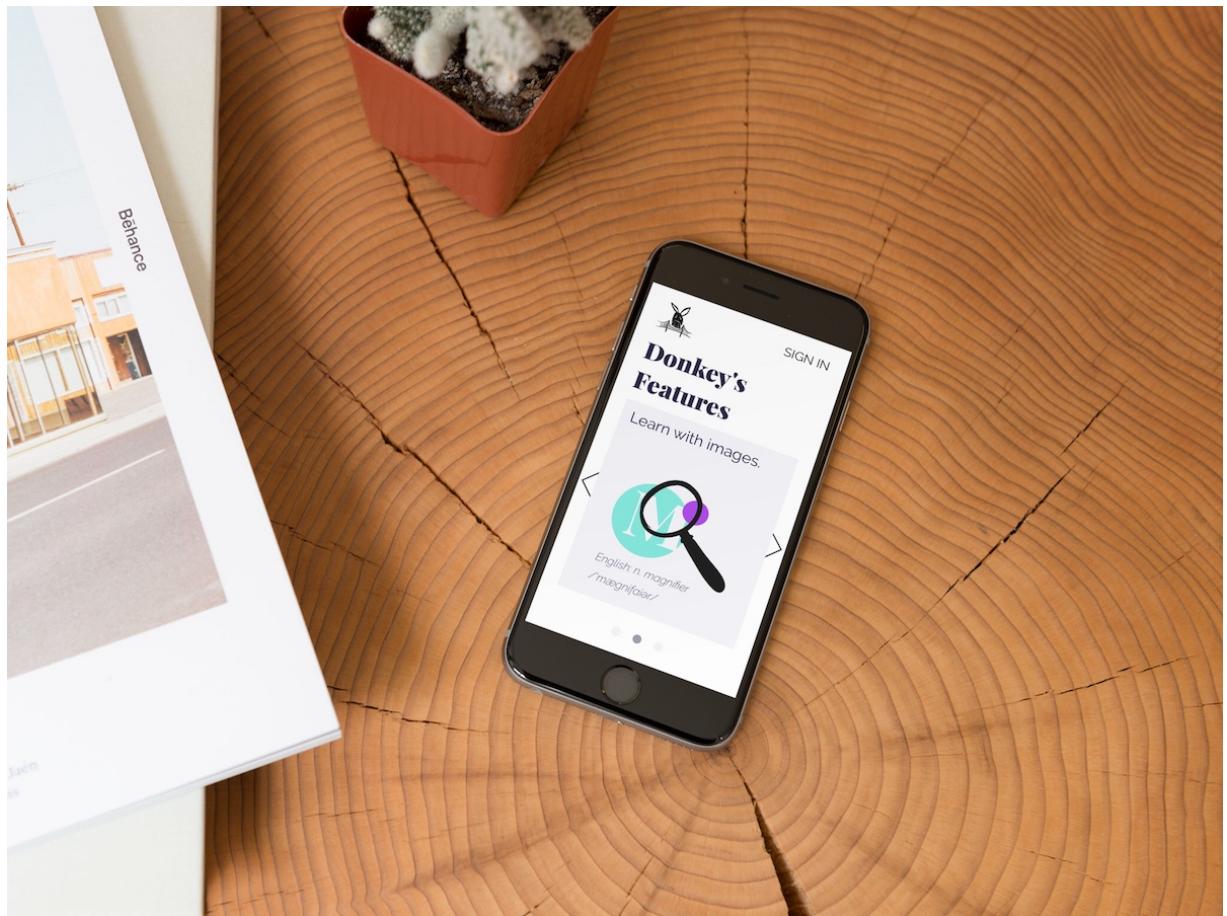
Look up word





Retrospective

Now working up the project "donkey bridge", which is already one year old, gives me many insights how I improved my skills within UX design the last year. I especially collected more proofed solutions to common UX challenges, like how to introduce the user to an app (for example through hint tips). I am familiar with common practices of ui patterns, and dived into apple's human interface guidelines and google's material design guidelines. Furthermore I can quickly set up a style guide using public sources like fonts.google.com or material.io .



Reflecting the result

I am quite happy with the result, but I can also clearly see that I had biases. My interview partners were friends of mine, which are in a similar life situation like myself. I focused on challenges, which I could empathise with. I quickly fall in love with two features: connecting word with images, and having a convenient vocabulary search screen, like google translator. For another hypothetical project, I would challenge myself and

Reflecting the process

I really love the lean process, with quickly sketched out wireframes, which enabled an early testing phase. For the next time, I would set clearer research goals for my competitor research, as I don't see huge value in my research data. I could also imagine placing the competitor research after the user research, in order to choose my competitors more suiting to my challenge.

Further testings would implement a high fidelity prototype with all

look for a target group, which I am not belonging to.

navigational screens and with multi gestures functions.

Next steps

Having the user goal in mind to memorise vocabulary quickly, I would create some flashcards with visuals to run a testing, in order to find out if these flashcards really help user to memorise easily. At the same time I would speak to a backend developer and discuss the possibilities how to connect visuals to vocabulary (stock images? generic images? in-house created designs?).

I am happy to share my case study with you. Thanks for reading through!