



Language Learning Mobile App
By Sydney Sedloff, Jessie Jalca, Polina Shliakhina
[Link to High Fidelity Prototype](#)

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Team: Sydney Sedloff, Jessie Jalca, Polina Shliakhina

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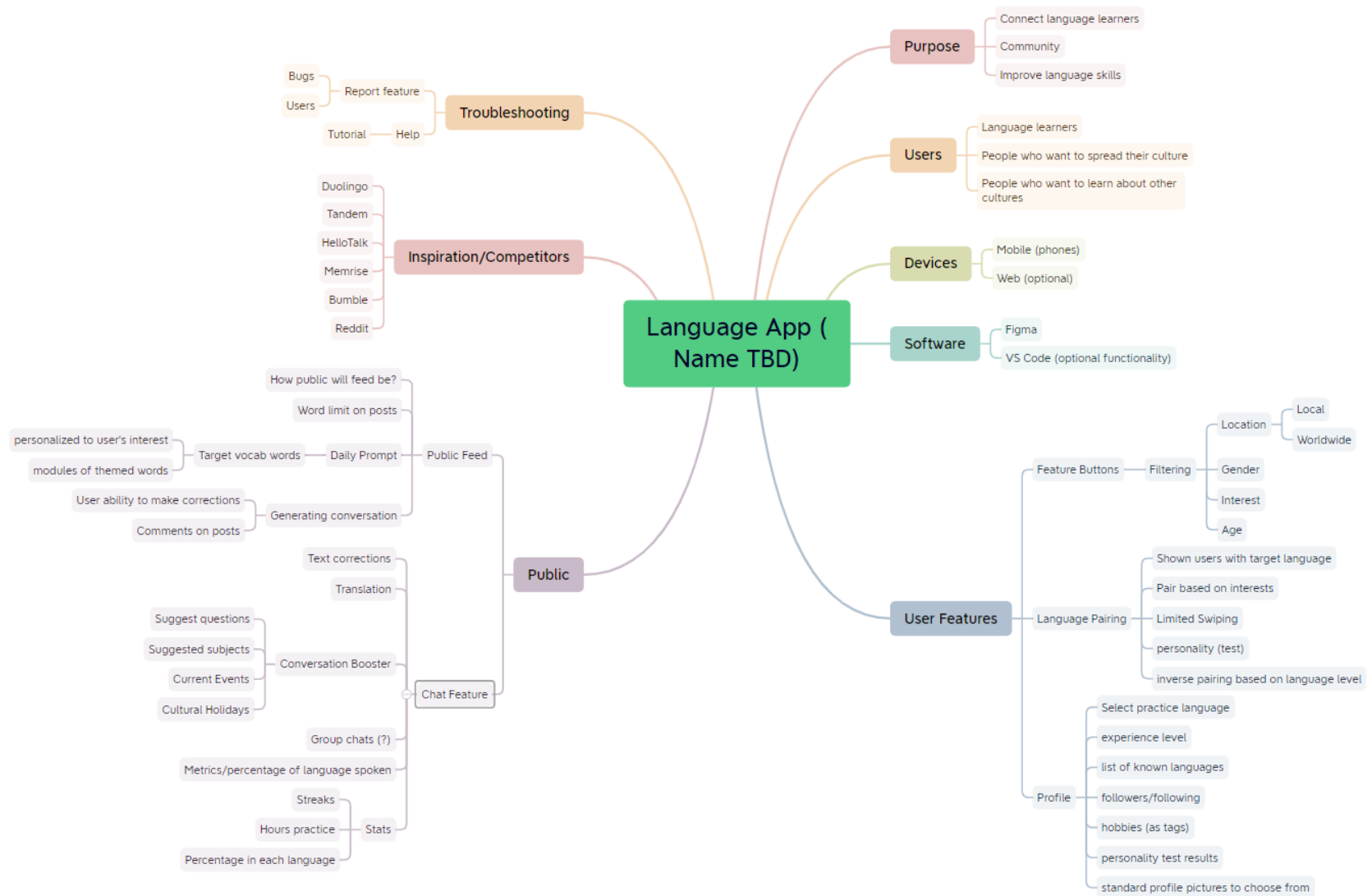
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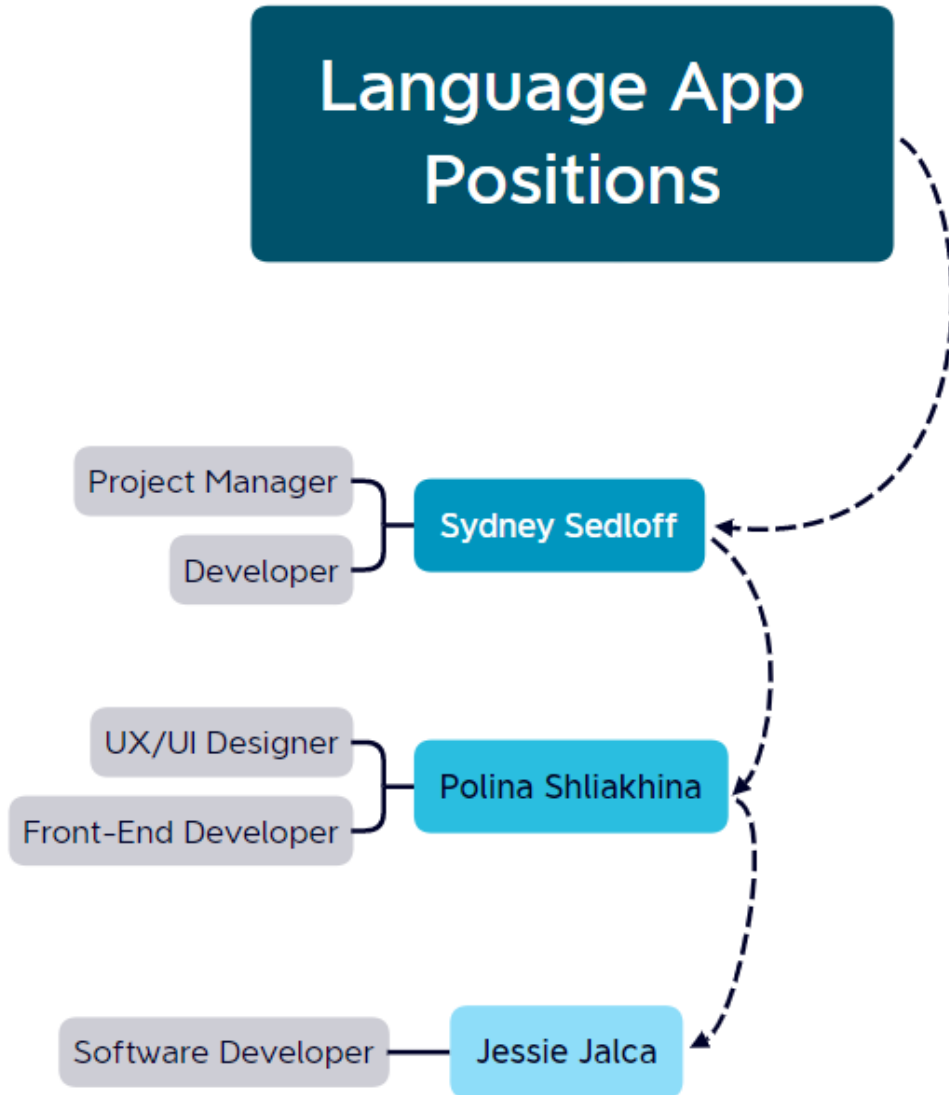
Mind Map



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Our Team



Examples in the Marketplace

Tandem

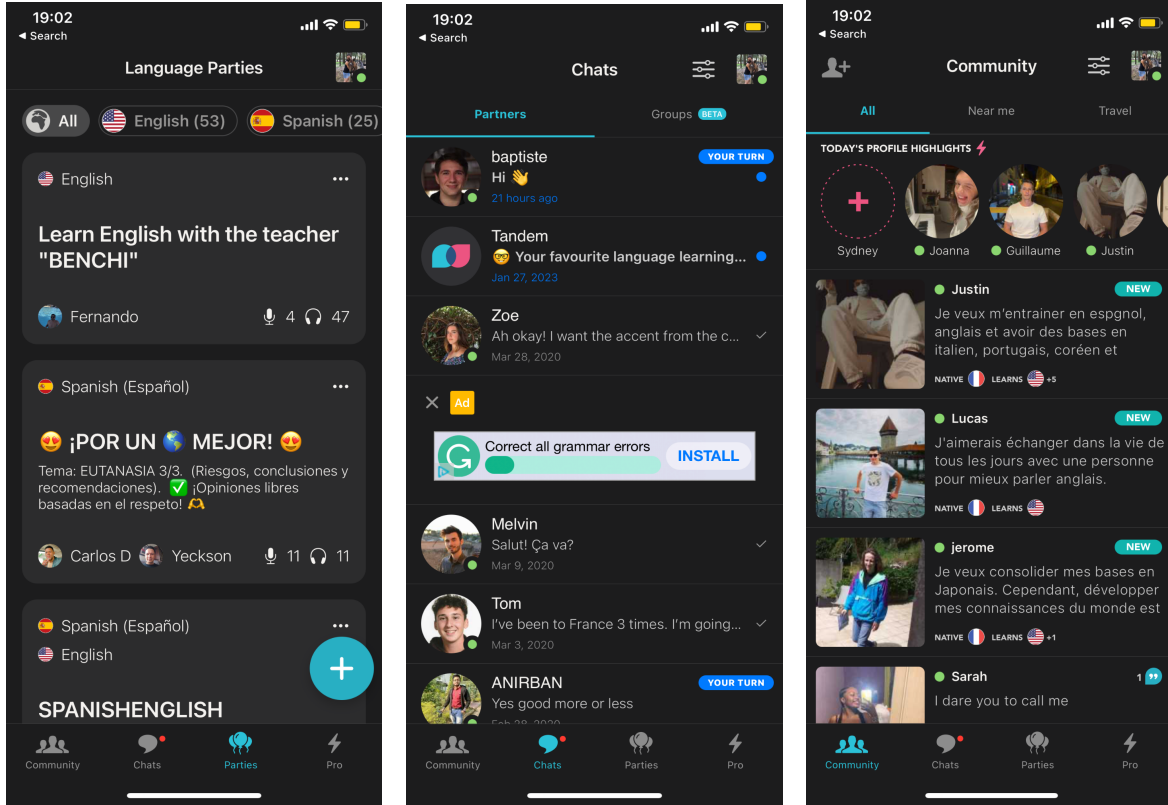
<https://www.tandem.net/>

Tandem is a language exchange app. It pairs you with native speakers of your target language who are learning your native language. It has chat features such as read receipts, translation features, and corrections to allow the other person to understand the conversation fully and correct the other person.

Strengths	Weaknesses
<ul style="list-style-type: none">• Natural Language conversations• Easy to find friends• Translations• Grammar/vocab corrections• Audio Messages• Video chats• Dark mode• Online status• Status updates	<ul style="list-style-type: none">• Choice paralysis between profiles• Hard to start for beginners• No way to verify proficiency of other person• Chats can become disrupted by language learning• Easier to talk in native language• Can be overwhelming with number of notifications

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iTalki

<https://www.italki.com>

iTalki is a language learning app that prioritizing speaking with people in a user’s target language. To do this, it helps to connect certified language teachers and community tutors with learners via online via chat and video calls. There are a lot of filtering options for choosing a teacher or tutor so that users can find the best that suits them, and users can rate their teachers and tutors after meeting with them. Users have to pay to book teachers and tutors, either in one-on-one or group sessions, but they can also listen to teacher-made podcasts, respond to prompts in audio or writing, or ask community questions all for free.

Strengths	Weaknesses
<ul style="list-style-type: none"> • Encourages speaking & writing • Lots of media in target language • Can listen to a lot of real speakers 	<ul style="list-style-type: none"> • Paid service to speak with teachers/tutors

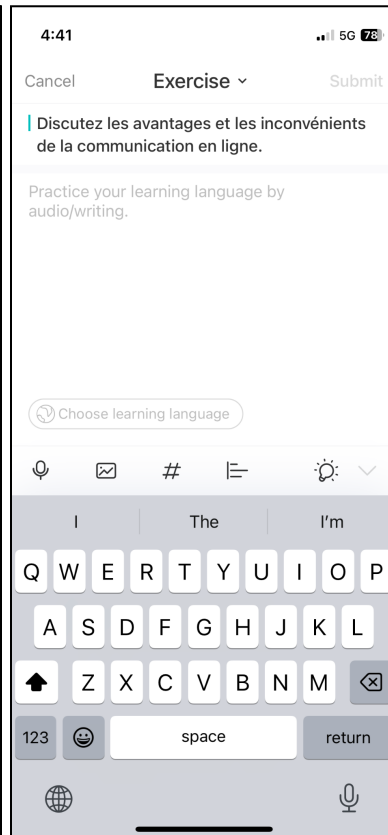
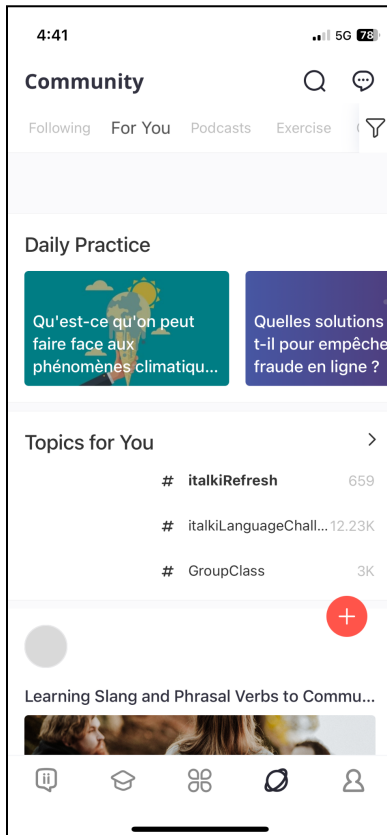
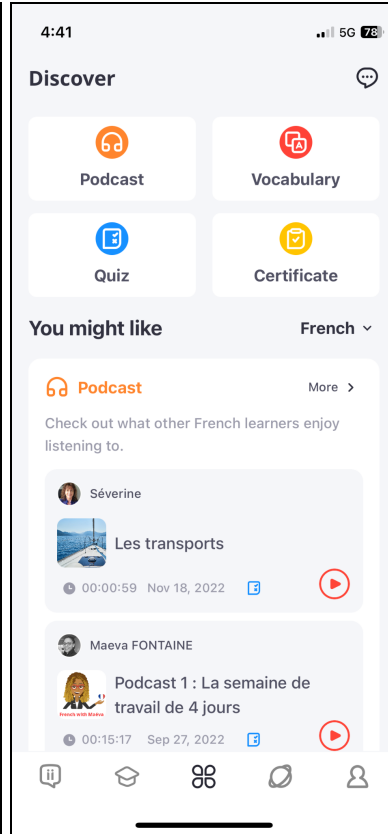
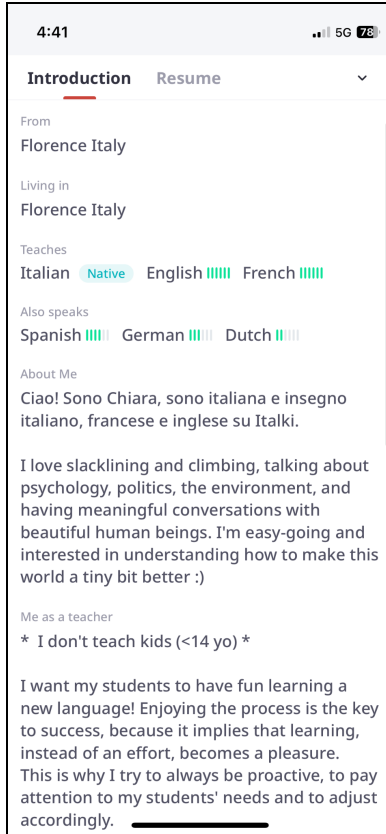
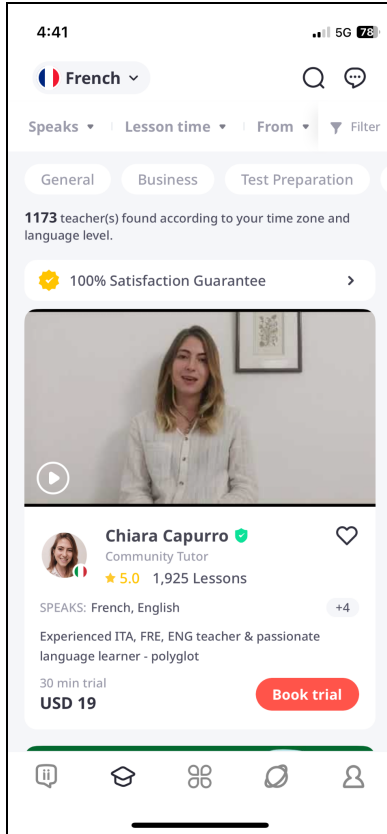
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<ul style="list-style-type: none">• Can speak with a lot of real speakers• Can tailor lessons to goals• Can contact teachers/tutors before booking• Can choose teachers/tutors based on the region they're from• Large selection of teachers/tutors• Extensive teacher & tutor profiles with availability, pricing, reviews, teaching styles, etc to help pair learners with teachers that best fit them• Simple UI that emphasizes content• Offers language placement tests• Large target language selection pool	<ul style="list-style-type: none">• Can't connect with other learners outside of group lessons & answering questions• Can be overwhelming and confusing• No language pronunciation• No transcript for podcasts• Limited automatic filtering to target language• Tedious to switch between target languages• Limited teachers/tutors for certain languages• Lacks writing correction tools• Can't search for specific content
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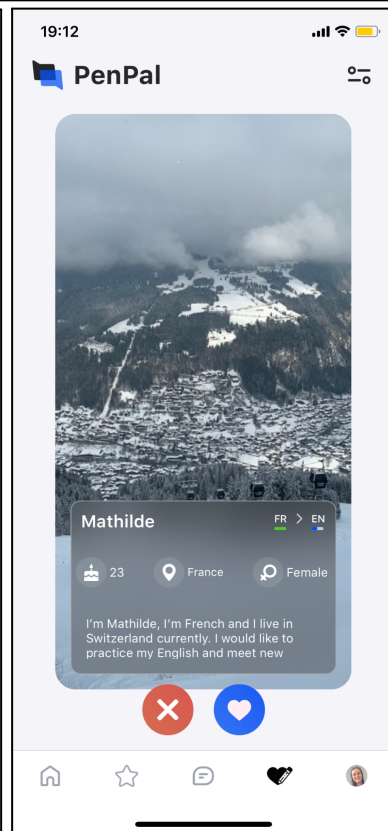
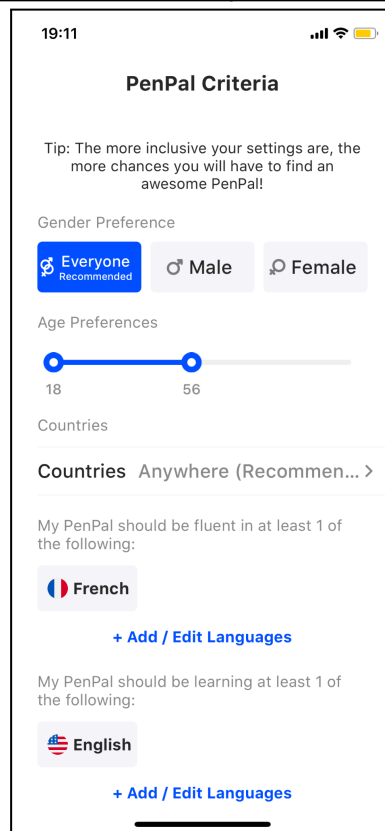
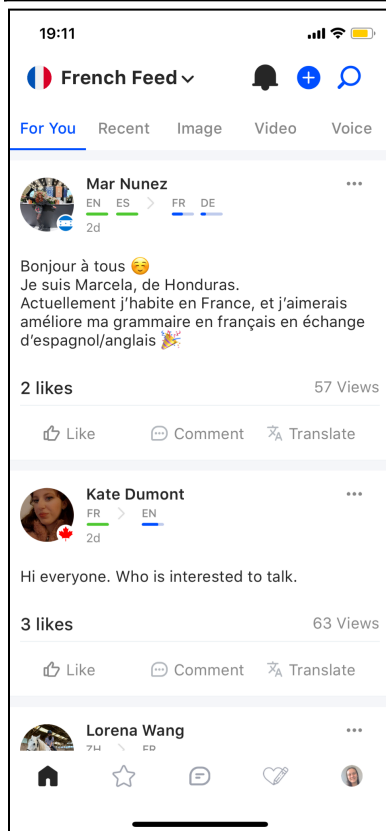
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HeyPal

<https://heypalapp.com/>

HeyPal is a language exchange app that focuses on a social media feed to exchange languages. You can filter the social feeds by content type. Unfortunately, all the features are limited in quantity by a paid plan. The free plan limits you to 5 new conversations, 100 messages, 15 translations, 10 swipes on PenPal, and one language feed per month.

Strengths	Weaknesses
<ul style="list-style-type: none">● Easy to find people to talk to● Social media feed● Natural foreign language posts● Can filter feed by content type● Voice messages● Matched language partners●	<ul style="list-style-type: none">● Free plan has many limitations● Not a lot of activity● UI is a bit confusing● Have to activate many features



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Idyoma

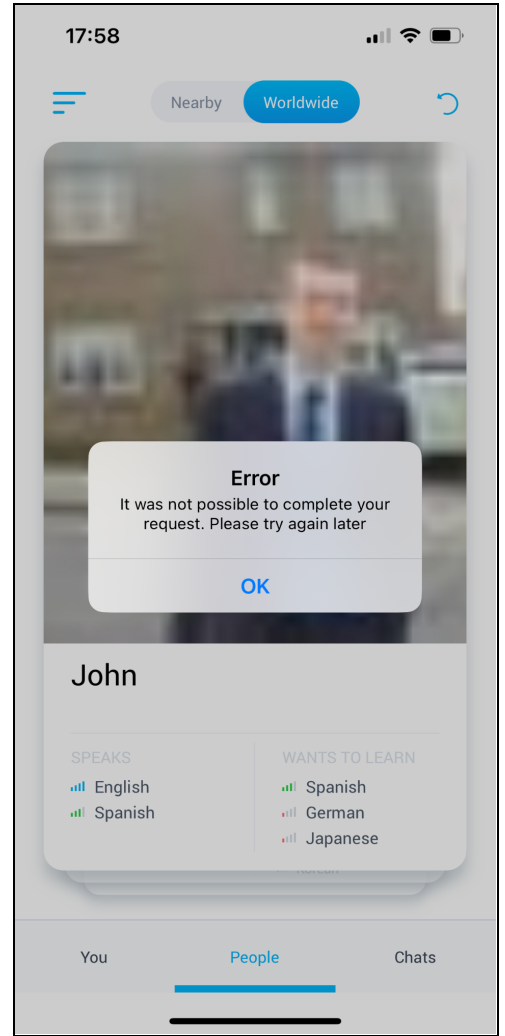
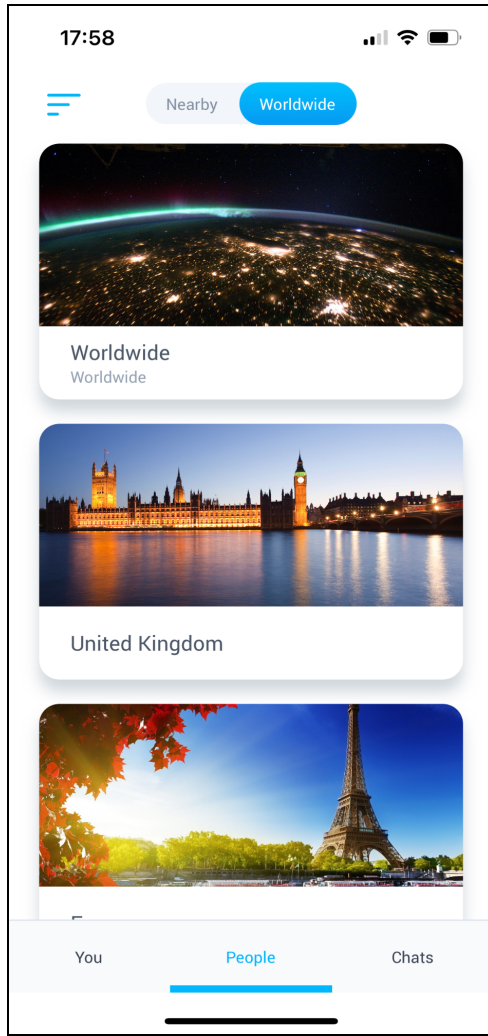
<https://www.idyoma.com/>

Idyoma is a language exchange app that incorporates swiping features. The main focus of the app is to connect the user with a language exchange partner. The app has a simple design and limited features. The user has an option to filter the search to local or worldwide locations. Messages can be corrected and translated inside the app. According to reviews, 4 years ago the app was very well received by users, however, the most recent reviews are mostly 1 to 2 stars. Users complain about bot problems, inability to log in and other technical issues.

Strengths	Weaknesses
<ul style="list-style-type: none">• Simple & straightforward UI design that helps the user to find language exchange partners• At the beginning of the conversation, the app gives examples of conversation starters, helping users to send their first message• Worldwide feature allows you to look for people in specific countries (Ex: Turkey, Germany, United Kingdom and etc)• Allows the user to list up to 3 languages the user is learning and 3 languages the user is speaking	<ul style="list-style-type: none">• Very small pool of users, especially in “local” section• Many profiles don’t have any description about the user• No ability to look for users who are speaking your targeted language• Errors and bugs when using some features of the app• Conversation is allowed immediately - no need to match with the person

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HelloTalk

<https://www.hellotalk.com/?lang=en>

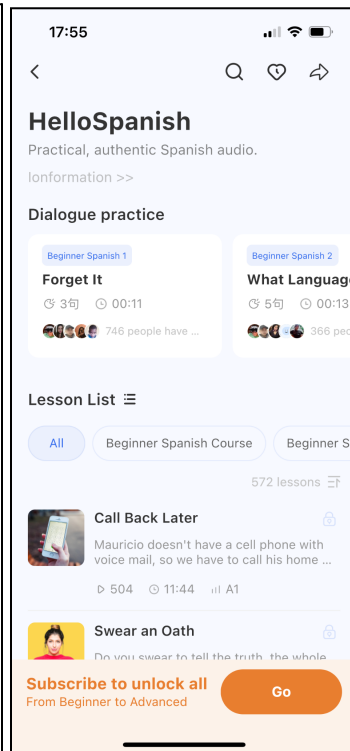
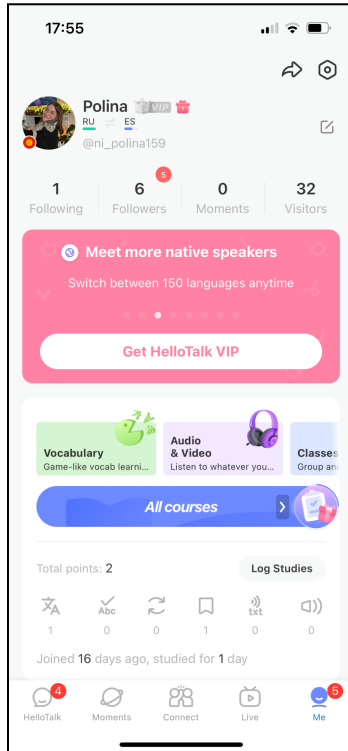
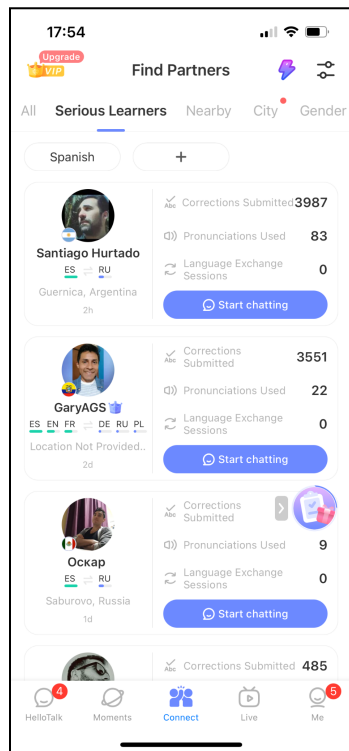
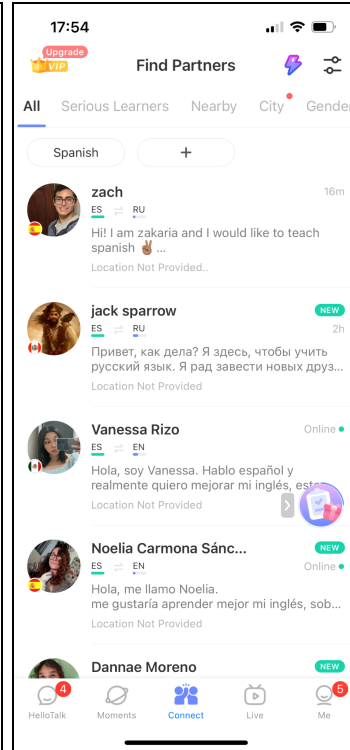
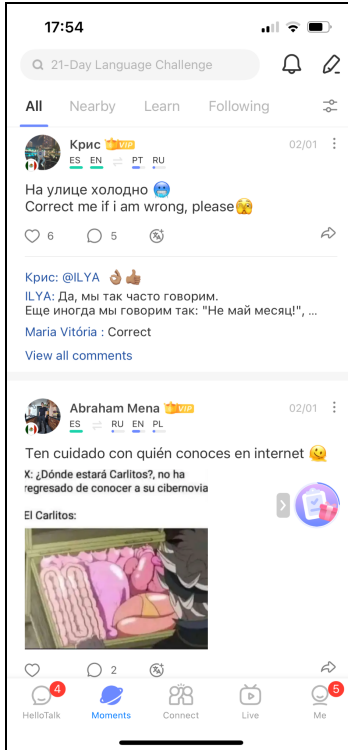
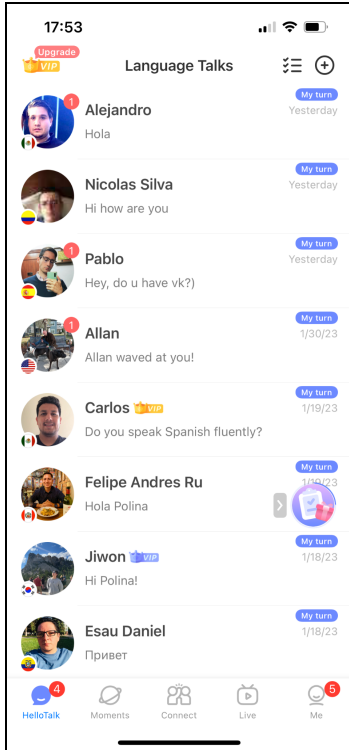
HelloTalk is one of the most popular language exchange apps in the market. Its main goal is to connect users with native speakers around the world. Main features are text, voice, and video chat, language tools (translation, pronunciation, transliteration, and corrections) and Moments - public social feed. It also provides learning opportunities in the form of audio courses, video courses and live classes.

The paid version gives users an access to a bigger list of features such as filtering the search by location and gender. It also gives access to unlimited translations, live captions (for live videos), and Visitors page.

Strengths	Weaknesses
<ul style="list-style-type: none">● Large pool of users● “Serious Learner” page lets you find users who are actively helping with correction and pronunciations● Very well developed language tools● Ability to filter the search according to the targeted language, level of fluency, region, city, gender and age● Moments are seen by all native speakers of the target language● Auto generated QR code of the profile for easier share● Notification settings with an option to turn off/on specific notifications (Moments comments, new message, new followers and etc)● AI Grammar Checker and Translate when writing the post	<ul style="list-style-type: none">● Too many features that overwhelm users● Hard to navigate through the app when looking for particular features● Infinite amount of user profiles on the main page leads to the paradox of choice - having too many options can cause users stress and problematize decision-making● No access to social feed made by native speakers of the target language● Privacy concerns & the lack of messaging preferences● Limited amount of translations (5 per day) & ability to initiate the chat (10 per day) in a free version

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Bumble

<https://bumble.com/>

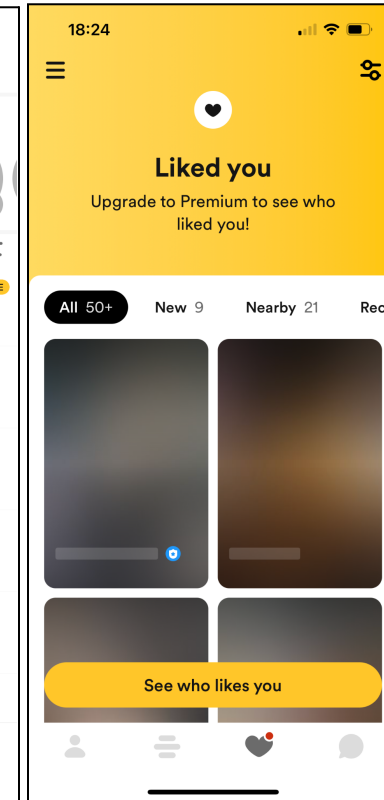
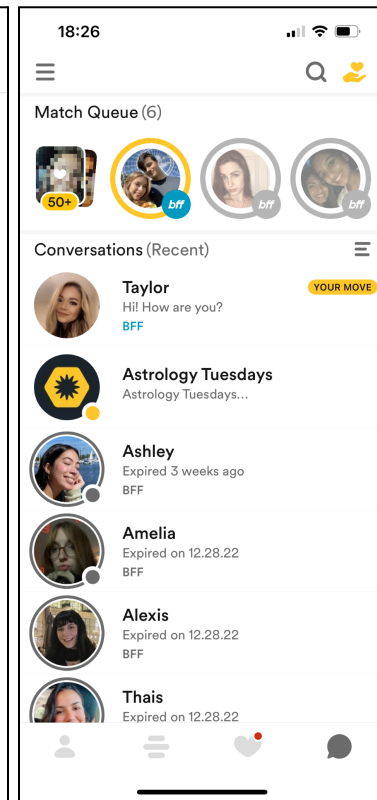
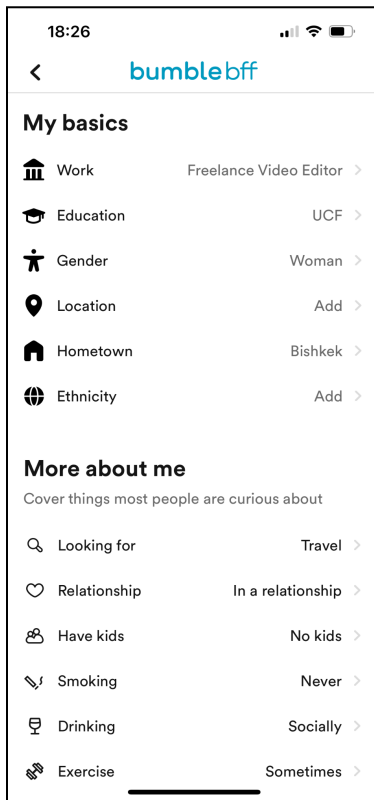
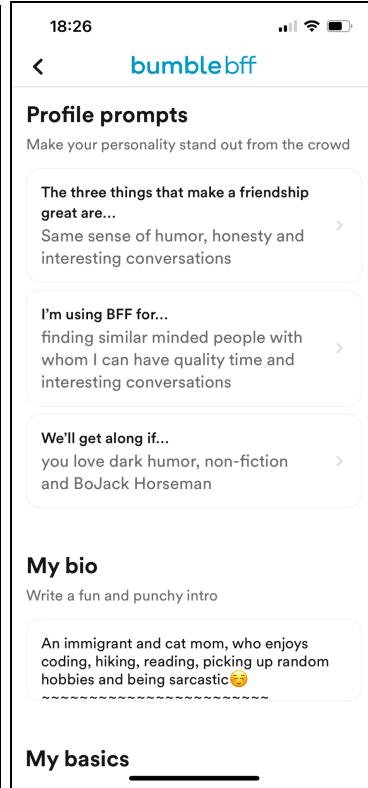
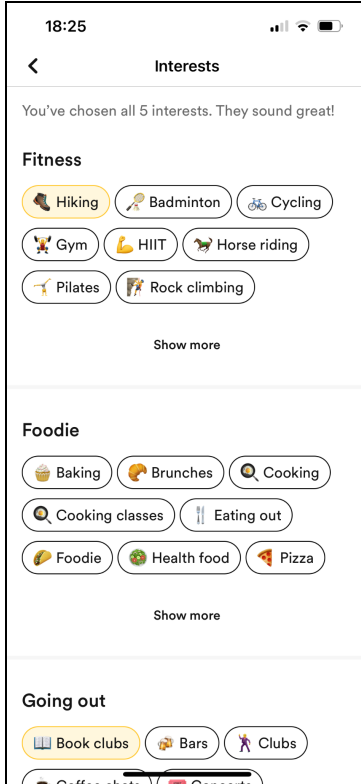
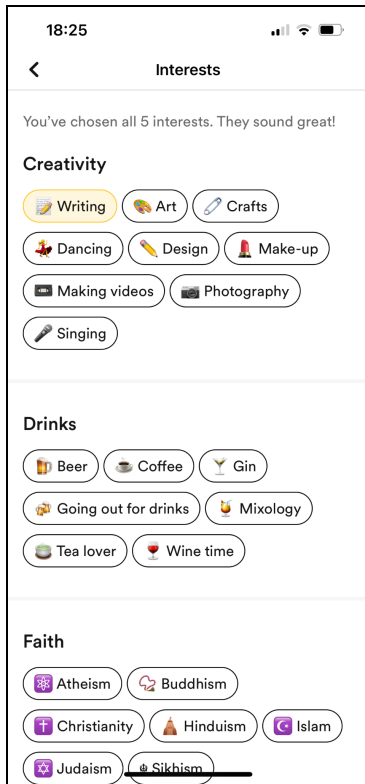
Bumble is an online dating application that has three modes - Dating mode, Friend mode and Networking mode. It incorporates a swiping feature to look through and choose the potential match. Only once matched with the person, the user can initiate the conversation.

Bumble stands out from many other dating apps by allowing the users to pick their interests from the given list of "tags" and topics (Creativity, drinks, faith, fitness, food, going out, movies, music, Pets, social activism, sports, spirituality, traveling, staying in, values & traits, wellness). With the paid version, users are allowed to filter their search according to their interests. Paid version also gives users an access to people who liked the user's profile.

Strengths	Weaknesses
<ul style="list-style-type: none">● Large pool of users● Very well made UX/UI design - easy to navigate● Provides users a list of tags that help describe user's interests and life goals● Profile prompts● Limited likes - enforces users to be mindful of their choices● Access to filters such as age, distance, languages (free version) and interests (paid version)● 24 hour limit to initiate the conversation - urgency enforces users to actually chat with people they matched● Access to GIF in the chat● Backtrack feature allows users to undo "Swipe left"	<ul style="list-style-type: none">● Many treat friend mode and networking mode as another dating opportunity● Most features are available only to paying users● No conversation prompts that could help to start the conversation● Big problem with keeping up the conversations. Most are still getting expired quickly because the majority of users don't know how to keep the conversation flowing

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Duolingo

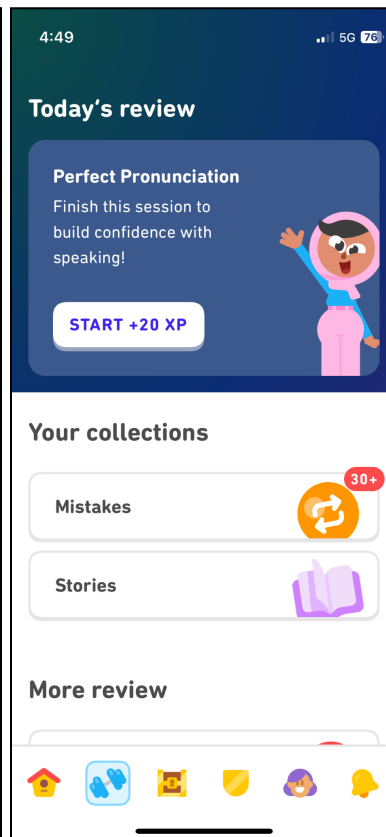
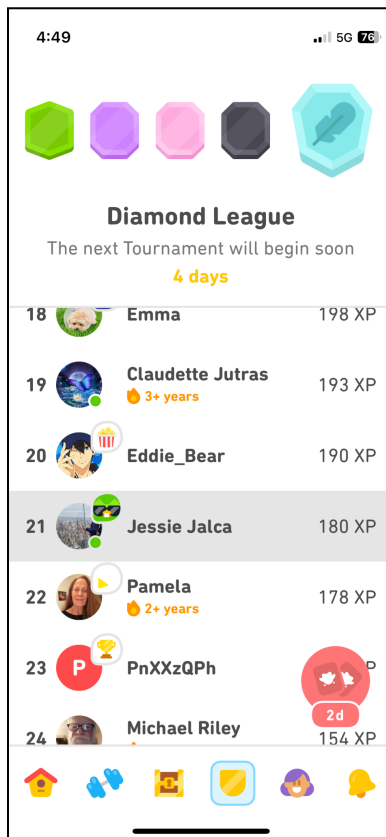
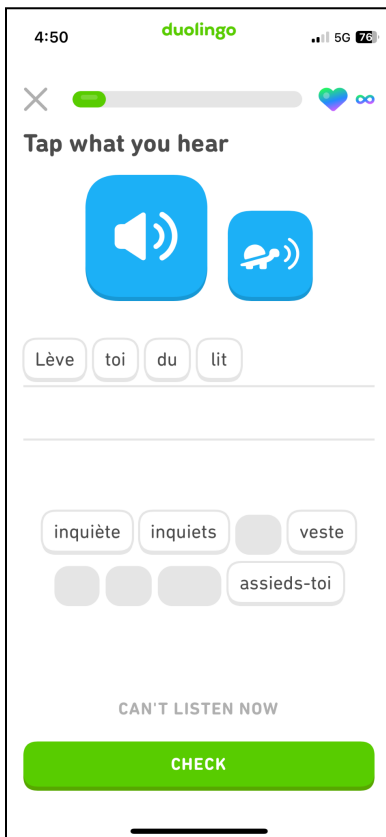
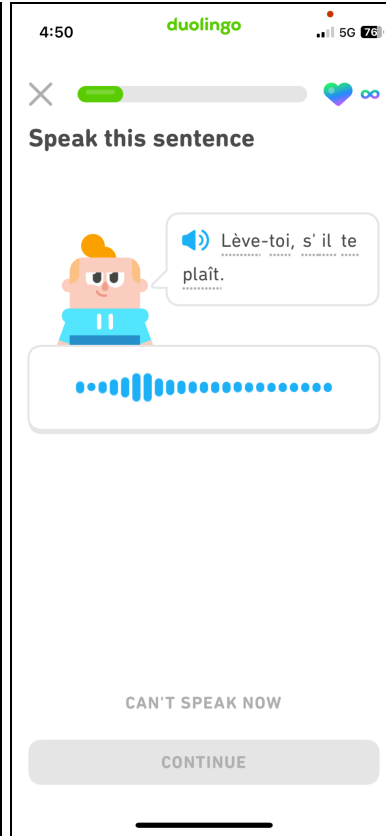
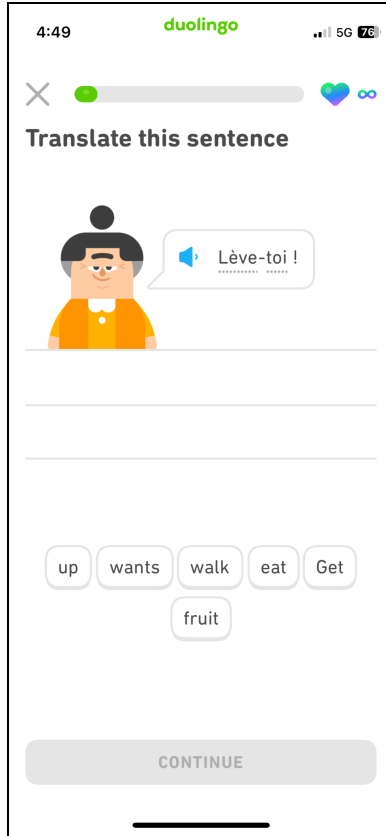
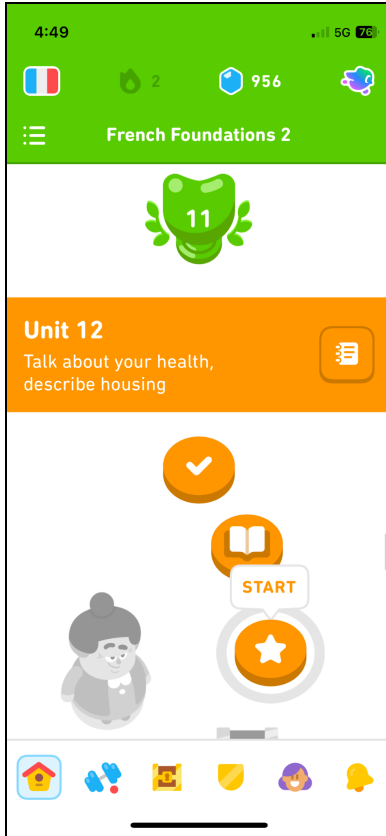
<https://www.duolingo.com>

Duolingo is a gamified language learning app. Recently re-designed, it guides users through a very straight-forward path to learn their target language through simple exercises, games and activities. It also challenges users to stay consistent with streaks, quests, badges, tournaments, and achievements.

Strengths	Weaknesses
<ul style="list-style-type: none">• Simple, straightforward learning path• Encourages consistency with streaks, competitions and badges• Diverse language learning activities• Large target language selection pool• Encourages review• Low cost for paid version• Easy to find and digestible grammar and pronunciation lessons• Fun sound effects and haptics• Simple but helpful settings options• Learn based on skill level• Can jump ahead if more advanced• Fun UI that makes language learning feel less intimidating• Great for beginners/casual learners	<ul style="list-style-type: none">• No open community• Doesn't allow real conversations• Frustrating amount of ads in free version• Can't tailor learning to interests• Slow to progress; potentially more annoying for more advanced/serious learners• Limited speakers to listen to• Limited speaking and writing practice• Can't create own practice content• Can't search for content

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Lingvist

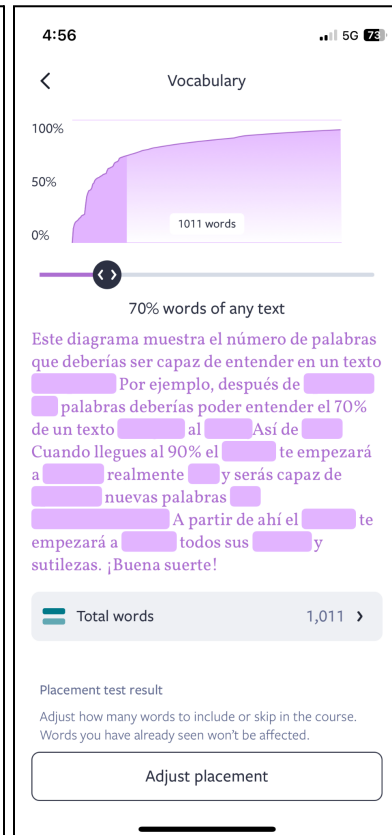
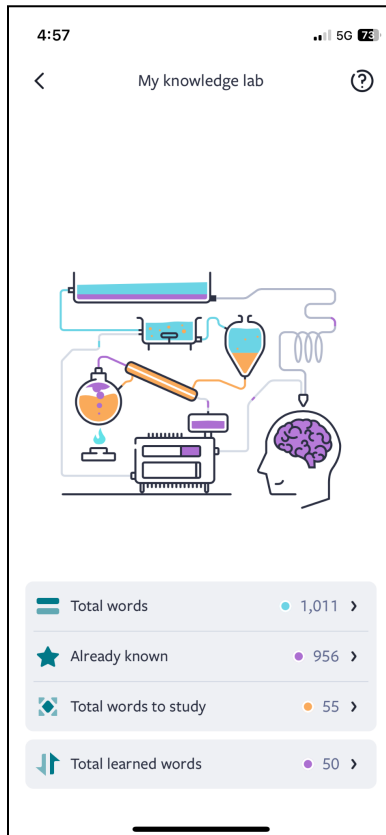
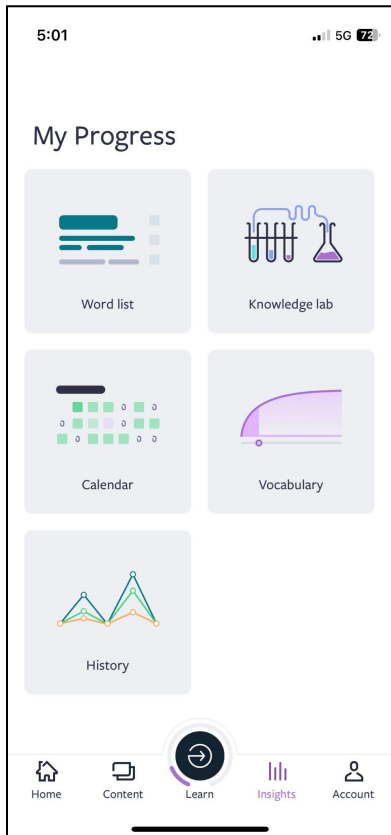
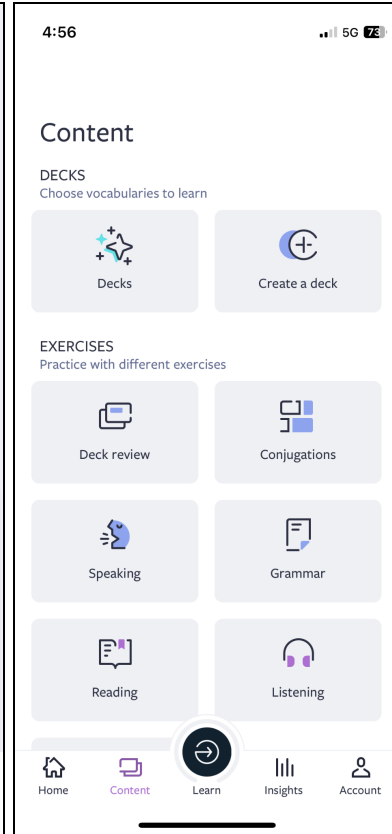
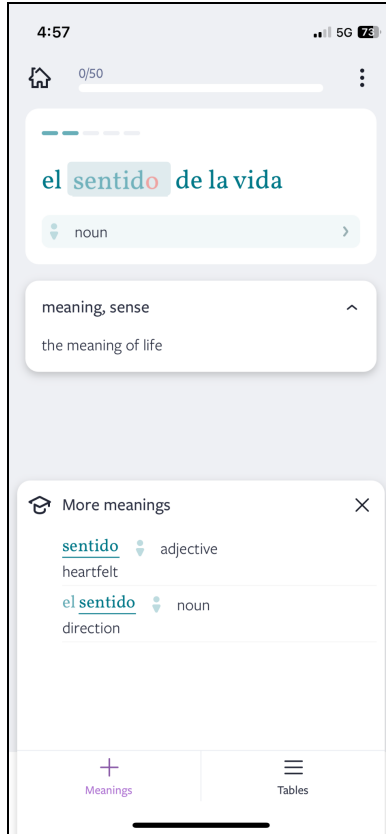
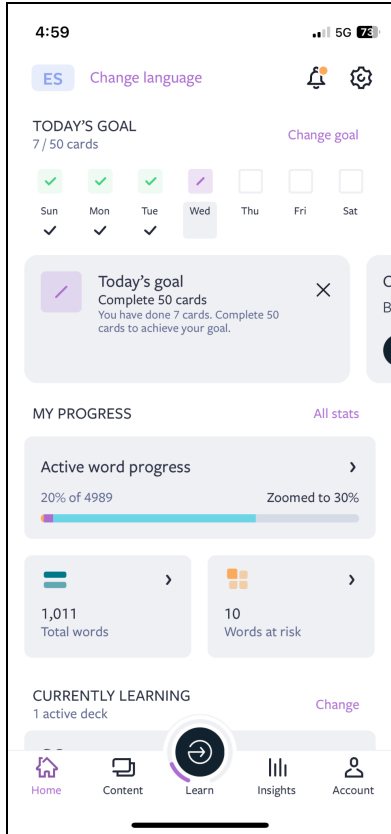
<https://lingvist.com>

Lingvist is a subscription-based language learning app that prioritizes spaced repetition learning. The main function is centered around decks of vocabulary presented within example sentences and phrases. Users can select decks based on interest, goals, and skill level. Depending on the language, extra learning content and exercises are also available.

Strengths	Weaknesses
<ul style="list-style-type: none">● Learn based on current skill level● Learn based on goals● Learn in context (teaches words by using it in a sentence)● Learn grammar implicitly through sentences● Can create own learning decks● Graphs to visualize progress and strength● Retake placement tests● Pronunciation and translations● Streaks and learning goals to encourage consistency● Grammar notes for better clarification● Extra exercises to practice the language in other ways● Straight-forward and simple to use● Simple UI that lets content and progress stand out● Make rapid progress● Great for more serious/advanced learners● Simple functional settings● Simple on-boarding process	<ul style="list-style-type: none">● Can't search for content● Grammar notes are somewhat hidden● Some content is only available in certain languages● Limited extra exercise content● No community or real conversations● May be intimidating to people starting from zero● Doesn't outright teach much grammar● Not much room for practicing speaking/writing from scratch● Somewhat short list of languages to choose from, focused more on European languages● Requires paid subscription (though it allows a 14-day free trial)

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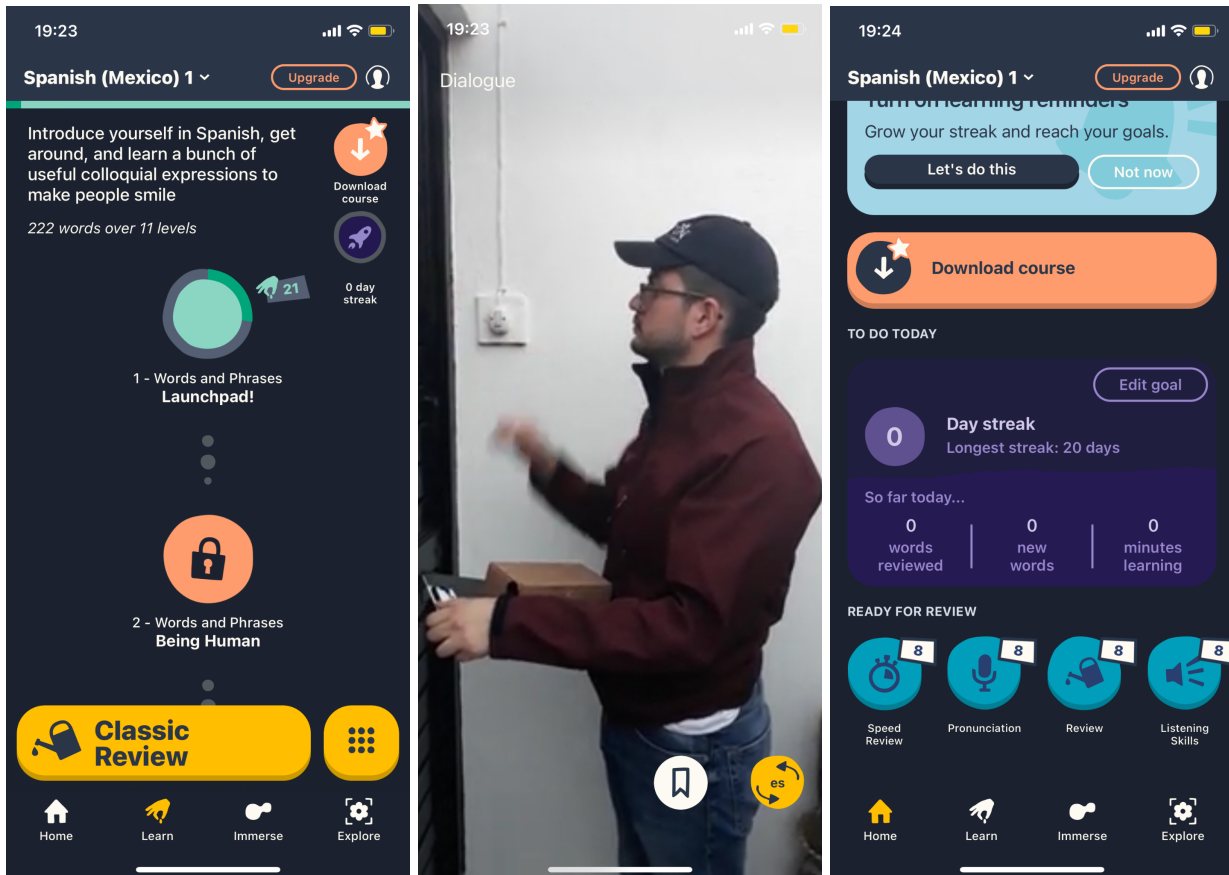
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Memrise

<https://www.memrise.com/>

Memrise is a language learning app that focuses on vocabulary and common phrases. It does not teach grammar so creating sentences may prove difficult, but creates and reinforces common or themed words

Strengths	Weaknesses
<ul style="list-style-type: none">● Custom vocab words● Leveled vocab packs● Pronunciation● Good at reinforcing words● Practical words and phrases● 23 languages	<ul style="list-style-type: none">● Can become repetitive● Only words, no grammar● No natural lesson progression



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Decision Criterion Table

	Language Lessons	User Learning Levels	Translation Capabilities	Streaks (daily counter)	In-App Currency/Points	Following / Followers / Friends	Course Levels	About Me / User Bio	Sound effects	Language pronunciation	Social Feed	Practice Goals	Online Status	Badges	Partner References	Haptics	Audio Messages	Video Chats	Location Features (Local / Global)	Set Profile Avatars/Icons	Peer Corrections	Choose Topics/Interests to Learn	Delivered / Read Feedback	Message Reactions
Language Exchange Apps																								
Tandem	0	1	1	0	0	1	0	1	0	0	1	0	1	0	0	0	0	1	1	0	1	0	1	0
iTalki	1	1	0	0	0	1	0	1	0	0	1	0	0	0	1	0	1	1	1	0	1	1	0	0
HeyPal	0	1	1	0	0	1	0	1	0	0	1	0	0	0	0	0	1	0	1	0	0	0	1	0
Idyoma	0	1	1	0	0	0	0	1	0	0	0	0	1	0	0	1	1	1	1	0	1	0	0	0
HelloTalk	1	1	1	0	1	1	0	1	0	0	1	1	1	0	0	0	1	1	1	0	1	0	0	0
Language Learning Apps																								
Duolingo	1	1	0	1	1	1	1	0	1	1	0	1	0	1	0	1	0	0	0	0	0	0	0	1
Memrise	1	1	0	1	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Lingvist	1	1	1	1	0	0	0	0	1	1	0	1	0	1	0	0	0	0	0	0	0	1	0	0
Community & Meeting Apps																								
Bumble	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	1	1	1	1	0	0	0	0	0
Reddit	0	0	0	1	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	1	1	0	0	1
Other																								
iMessage	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	1	1	1	1	1	0	0	1	1
WhatsApp	0	0	0	0	0	1	0	1	1	0	0	0	1	0	0	1	1	1	1	1	0	0	1	1
Telegram	0	0	0	0	0	1	0	0	1	0	0	0	1	0	0	1	1	1	0	0	0	0	1	1
Total	5	8	6	4	3	8	2	8	6	3	5	4	7	2	1	6	8	8	8	3	5	2	5	5
Percentage	38.46%	61.54%	46.15%	30.77%	23.08%	61.54%	15.38%	61.54%	46.15%	23.08%	38.46%	30.77%	53.85%	15.38%	7.69%	46.15%	61.54%	61.54%	61.54%	23.08%	38.46%	15.38%	38.46%	38.46%

User Profiles & Stakeholders

User Profiles

Primary Users

- **Language Enthusiasts**
 - **Age:** 12+
 - **Education:** Middle school and higher
 - **Income:** none - high
 - **Occupation:** none - fully employed
 - **Technology Used:** mobile phones or desktop
 - **Technology Proficiency:** Medium to high
- **Personal Investors**
 - **Description:** People in a relationship or those who need to learn a language for a purpose
 - **Age:** 18+
 - **Education:** any
 - **Income:** low to high
 - **Occupation:** any
 - **Technology Used:** mobile or desktop
 - **Technology Proficiency:** high
- **Students**
 - **Age:** 14-22
 - **Education:** High School and College
 - **Income:** all ranges
 - **Occupation:** not employed or part-time
 - **Technology Used:** Mobile phones and laptops
 - **Technology Proficiency:** high

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- **Casual Learners**

- **Age:** 12+
- **Income:** none - high
- **Education:** Middle school and higher
- **Occupation:** any
- **Technology Used:** mobile phones, laptops, computers
- **Technology Proficiency:** moderate to high

Secondary Users

- **Professionals**

- **Age:** 25+
- **Income:** middle to high
- **Education:** College+
- **Occupation:** Fully employed/promised full employment
- **Technology Used:** desktop and mobile
- **Technology Proficiency:** moderate to high

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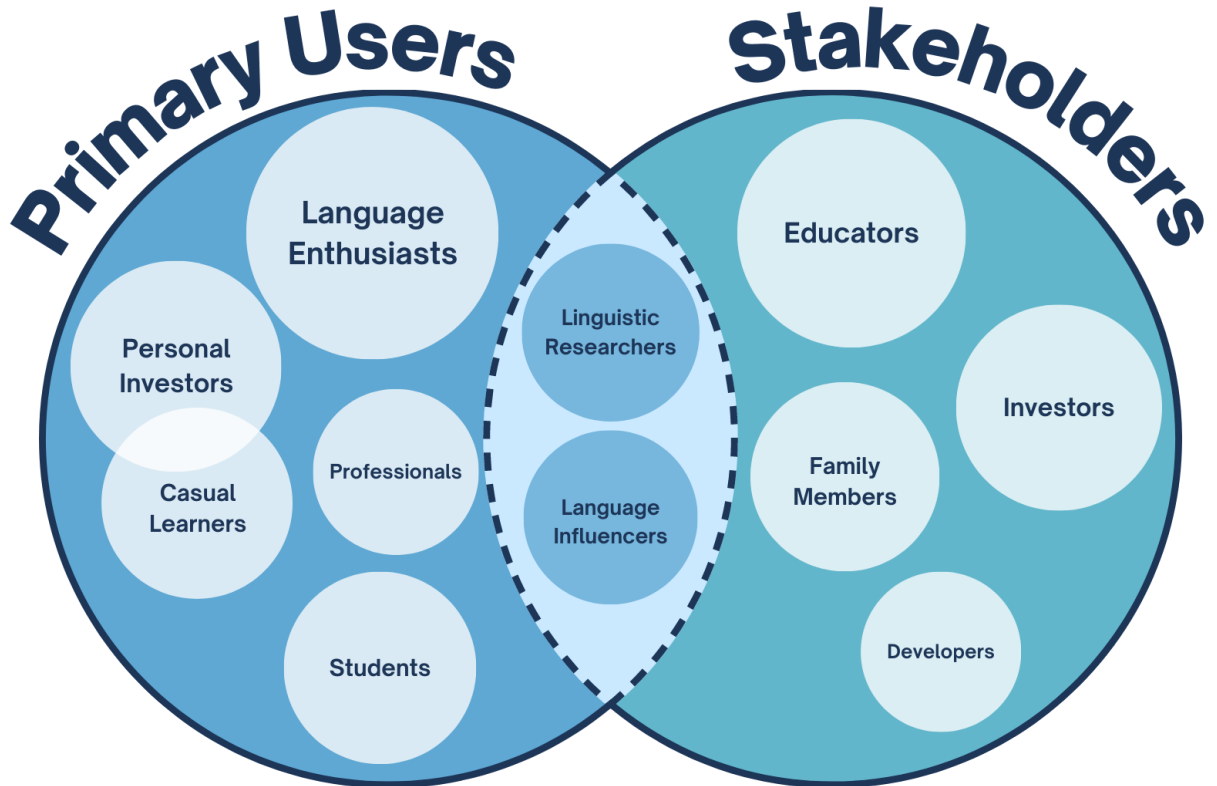
Stakeholders

Key Stakeholders	Supportive? (yes/no)	Importance to Success	Goals, motivations, and interests	Roles
Investors	Yes	High	App profits/ money	Funding
Educators	Yes	High	Educators will have a higher success rate with students	Encourage students to join
Language Influencers	Yes	High	Product promotion and possible sponsorships	Encourage language learners to join; help the app to gain popularity;
Family Members	Yes	Moderate	Family members will get to communicate more effectively	Encourage family member to learn cultural language
Linguistic Researchers	Yes	Moderate	Can have more data for language learn	Encourage people to learn for data/studies
Developers	Yes	High	Create an application for portfolio & being compensated	Develop the app
Competitive Apps	No	None	Will lose users to app with better/ different features	Pointing out at the disadvantages of the app and showcasing how their app is better

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Venn Diagram of Users



Market Survey Feedback

User Interview

Question #1: What features do you look for in a language app?



Answers:

- Ease of use, language variety, flexible options/customizable
- The ability to choose different language you want to learn whenever and add them to your list (in duolingo)
- Videos
- Levels
- Easy to use, good design.
- Push Notification Reminders at user-defined intervals, sentence completion questions, conjugation questions
- The ease of use and the all-round "cleanness"
- I want the lessons to make sense and teaching me the foundations of a language rather than random words or phrases. I love when apps incorporate verbal learning and fun interacting games. The visual language of the app should be consistent and easy to understand (ex: I want to know where the settings/my lessons are with visual information cues/great UI design)
- Practise problem solving
- - The target language
 - Advanced language—higher-difficulty language concepts, pronominal verbs/phrasal verbs where the base verb undergoes a change in meaning

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-Specific subject areas/lesson plans, e.g. career- or subject-specific. "Legal", "Graphic Design", "Software Development", "Mathematics", etc

- Like test quizzes after being taught, interacting
- Ways to relate the word to familiar concepts. Like relating new vocab to pictures or relating new vocab to a familiar sentence just with the new vocab word in it. (ex: word - "stolt", sentence = "at være stolt af", "stolt = proud, at være stolt af = to be proud of")
- I know all the whole sentence except stolt so placing it in that context helps me find a easy use for it and meaning.)
- Easy to use, all access
- Streak tracking and I think most importantly social features, I stay on Duolingo much more reliably when i have a friend or two to keep me honest
- Spaced repetition method, since it's scientifically proven to be effective ; streak series, so that I have some sort of daily small goal; custom flashcards, in order to make a personal archive of new words that might be less common in a pre-defined deck; interesting pictures, where possible, for new words. Being able to recall an image can be useful to memorize words.
- Easy to following along. I like it to be fun, having goals and a little set path I'm supposed to progress through is really encouraging. While I enjoy a set lesson plan that I don't have to think about I would like the option to go in and see an index. Often times I'll finish a lesson either confused or like I'm missing something, if I had a way to go in and read the source material in order to clarify something rather than hoping they'll cover it more in a future lesson, I would be able to learn/retain a lot more.
- Ease of use. The UI must be appealing or I become uninterested.
- Ease-of-use, good levels of progress
- I like simplicity and easy interface
- Graphics and engagement, smoothly operating apps
- Something that can adapt to me and my learning
- ease of use
- Communication with native speakers
- Corrections, progress, and correction rate (how many I got correct), pictures etc. Duolingo is good base.
- Interesting lessons and progress tests.
- Real life application
- Ability to change the app's appearance!
- Easy to use, free
- I look for games/goals. Like a set path to progress.
- More realistic scenarios, reading/oral comprehension practice, oral expression practice, immersion
- Easy to follow along

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Question #2: What features do you dislike in a language app?



Answers:

- Streaks, over-complicated learning “requirements, challenges against other people, ridiculous notifications that make you want to throw out your phone
- When you have points that you have to use in order to start the practice and when you can type the word and it translates the word in your native language (way of cheating yourself basically)
- Only multiple choice questions
- I don't like the repetitiveness of some the answers you already got correct over 100 times
- Writing things.
- Voice Input (not accurate)
- It doesn't pivot and just copies what other apps do.
- I hate streaks because when I lose them I feel like I can't get it back. I also dislike any app that tracks me and my friends progress, I do not care about other progress or their favorite things in my language app I have social media to stalk them not this (for example, on Venmo I can see what people/my friends are paying for/transactions and it's stupid and weirdly invasive)
- Not having the option to disable a non essential feature
- - Limits on lesson plan progression per day. Though maybe this could be justified with or at least preceded by a warning? E.g. if learning too much would be ineffective.
- - High costs

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- Being forced to follow a preset path. If you're at a higher level of language experience, it's not fun to start with things you understand already. It's much more fun and I think effective to have immediate access to something better suited to your level of experience (esp. without payment, though that's understandable)
- Anything that doesn't have anything to do with learning a new language
- Too much competition, since it can distract you from your main goal of wanting to learn a language instead of being better than someone at a language.
- Having to buy things inside app to continue
- Microtransactions, but also we're all stuck living under capitalism so I get that you gotta make money somehow and microtransactions are an easier sell than a subscription fee
- I don't really mind the competitive aspect. Leaderboards never actually motivated me
- If it's too overwhelming I likely won't open it again for a while. That being said, if the information/vocabulary I'm learning through the app isn't relevant or just isn't practical (like Duolingo tends to me) then I also won't likely come back to it.
- I dislike wordy pages.
- I wish the app could be more tailored to your vocabulary goals and learning style.
- Having to pay for shit lol
- Long session where I can't stop and continue later
- The baby-ing of learning
- too many notifications
- Time limited questions
- N/A
- When it's impossible to continue day strike after 1 day. Everyone deserves to make a mistake once 😊 Also need to re-do things to get to next levels.
- unnecessary vocab that cannot be applied
- Paid Subscriptions
- I don't like when the phrases or the content that I'm studying has no practicality.
- When you can't test out of a section, flash cards
- learning very specific phrases before learning basics

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Question #3: What subjects would you like to explore in your target language? (ex: cooking, politics, culture, etc.)



Answers:

- Culture
- Basics of conversation (key phrases), regional dialect options, culture, jokes, questions & responses
- Culture (norms in that country) and foods
- social interactions would be best
- All of them!
- Household, Animals, City (restaurant, park, library etc) Food
- Videogames, internet culture
- Social situations, greetings, common social questions, basic conversational things
- Basic communication
- Cooking, culture, career-specific terminology. Region-specific vocabulary and differences in everyday spoken or written language is helpful, especially when interested in travel.
- Cooking, music, religion
- If I am serious about learning a language I would like to learn all about it. So everything. BUT I have to start from the basics or else it gets confusing really fast. So like greetings, food, daily activities. All those basics.
- Culture, activities, and geography
- Food, daily life (transactions at a store, asking for directions, etc.), profanity is always fun too lol

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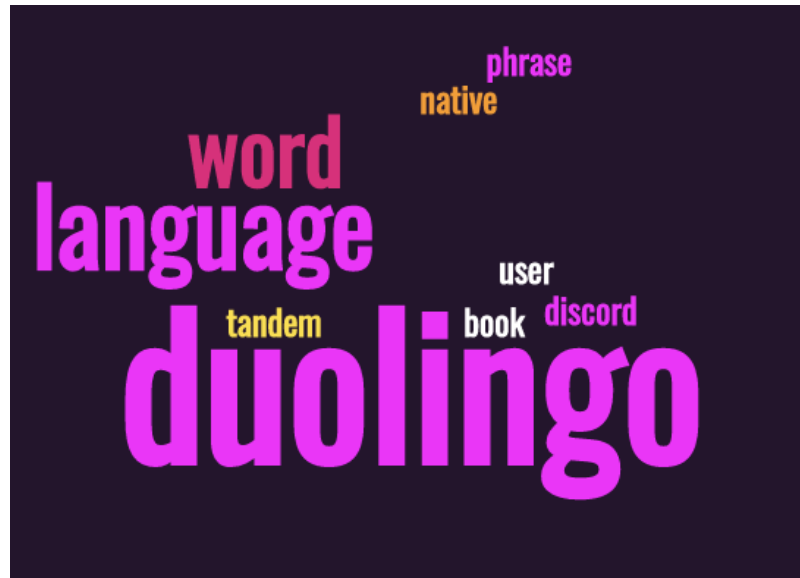
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- Politics, local culture, slang, basic words for each cultural field (art, philosophy, math, etc.).
- Culture, if you're learning the language it's crucial to learn their culture as well. It's important to know how and why you would do or say something different in that
- culture vs. What you would do or say in your own. Also, if you're wanting to learn the language odds are you would find learning the culture interesting and exciting. I would also like more scenario based conversations. I listen to a language learning podcast, it only teaches you a handful of phrases per episode, but it does it through practical, real-life role playing, scenarios you could actually be in as a beginner speaking their language. And those have stayed with me far more than the random vocabulary I've learned through game based learning apps.
- I think ordering food specifically and communicating needs in travel and directions.
- Daily conversation.
- Conversational, slang maybe?
- Culture, cooking, common phrases
- social
- Sports
- Grocery shopping, getting around, cooking, everyday life
- Common phrases, social media, body parts, movies.
- Conversation, shopping, transportation
- Culture and everyday social interactions
- Culture
- Social interactions first, like a meeting. Then I would like to explore more specific vocabulary. Culture would be a cool topic, then art and music, lastly politics.
- Politics, economics, philosophy, culture, literature, colloquial expression
- Basic sentence structure and the alphabet before jumping right into sentences.

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Question #4: What is/are your favorite tool(s)/app(s) for language learning, and how do you use them?



Answers:

- Conversation with real people, watching clips of other people talking and interacting. Imagine DCOMS in other languages - super easy to pick up what's happening just by watching and listening
- Um I just use duolingo and language transfer honestly because I haven't looked into other language apps and these apps are well known
- Videos to hear what words actually sound like
- duolingo
- I use Dualingo but I get tired of it telling me what to do and that it misses me.
- Anki: Vocab, Tandem: Practice
- Youtube and Discord (I only learn through immersion)
- Doulingo or good old fashion YouTube videos
- Practice problems, solving them.
- I use tools, mostly:
 - SpanishDict - An amazing resource for Spanish grammar and vocabulary, using a variety of sources. It also does great at distinguishing regional differences in meaning with certain words

DeepL Translator - Does pretty well at capturing the nuances (and sometimes idioms) of language during translation. Often sounds REALLY natural, with occasional exceptions. I've mostly tested just between English and Spanish, however.

Online articles and email newsletter subscriptions - lawlessspanish.com, Andrew Barr from realfastspanish.com, etc

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HiNative - An app I used for a little while, it lets users do questions and answers, or journal entries, and lets users give each other feedback on how natural they sound. I thought it was pretty cool.

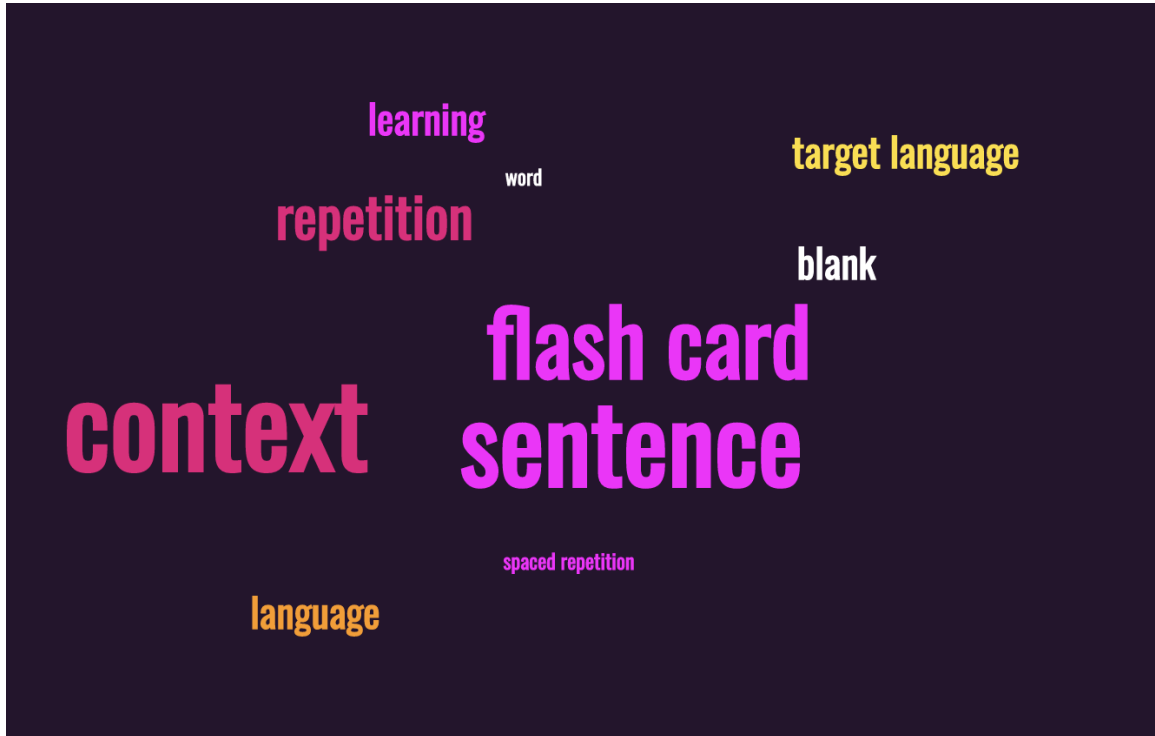
Babel - An app similar to Duolingo. This one stood out to me simply because I could use it for free using my Orange County library card.

- Right now I learn but hear and repeat I'm learning that learning a new language is like learning a new song
- I use specific apps for specific purposes, like Forvo to hear natives say the words instead of a computer generated text to speech. HiNative to ask natives any grammar or vocab questions. Books and apps to learn and quiz my self.
- Reading and writing flash cards
- Duolingo, I'll go through phases of being really into it for a few months but then I'll get bored or demoralized because I forgot to maintain a big streak and stop for a bit
- Busuu, since I find it the most effective app; RemNote, since it helps creating flashcards with effective spaced-repetition; Duolingo, which I honestly nowadays use just to keep my streak up; Netflix, or any other platform really, as long as there is my target language with subtitles.
- Duolingo is the only language learning app I still have downloaded, because the interface is so fun, it's easy to pick up and play a few minutes on. However, I learn a lot more by hearing a phrase or word and researching it through Papago or other translation apps
- I use Duolingo and conversing with my native speaking family.
- Duolingo, daily check-in when notified.
- Don't remember the name, but I like the ones where you can chat with people. Maybe use something like AI so learners can converse and gain experience
- Duolingo is my go to app
- N/a
- videos by repeating the phrases
- Tandem to communicate
- Duolingo, use it everyday
- Duolingo. Currently I don't use it.
- Duolingo was good at helping learn symbols
- Duolingo, and I just use it as often as I can to retain my knowledge
- I don't use any at the moment
- I love to repeat, and interact with people. I mainly use discord to practice. Other than that I progress with books that has a set path.
- Duolingo, practicing basic vocabulary and keeping the language fresh in my head; listening to podcasts, music, and movies in the language
- I've only used duolingo, but I didn't find it easy to learn.

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Question #5: In your experience, what is the most effective method to learn vocabulary? (ex: flashcards, spaced-repetition, fill-in-the-blanks, learning within the context of a sentence, etc.)



Answers:

- Learning within the context of a sentence, immersion, watching & listening to videos in Target languages
- Fill in the blanks, learning within the context of a sentence, spaced-repetition, and listening to a sentence or conversation and having to translate it
- flash cards
- fill in the blanks and learning within the context
- Community
- Spaced repetition
- Yeah just immersion I think. You'll eventually just learn it over time.
- Flash cards and fill-in-the-blanks and learning within the context of a sentence!
- No clue
- In the context of an app... I've never been consistent with using apps for learning languages. However, I do think that flash cards and spaced repetition work together well if they're phrased in a way that doesn't sound TOO similar to another card. And it's nice to be able to mix up how you make flash cards—if you try using a desktop app called Anki, you can get an idea of what I mean.

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I also think it's REALLY important for an app to not just teach root verbs, but how to use the verbs *practically*, in phrases. Just like we do in English, for instance, in Spanish some verbs when used in a sentence just aren't typically used without an additional word in front of them:

- Hablar vs Hablar de

* Él habló. ("He spoke.")

* El habló de/sobre xyz. ("He spoke *about* xyz.")

- Casarse vs Casarse con

* Ella se casó. ("She got married.")

* Ella se casó con Pablo. ("She married/got married *to* Pablo.")

Root verbs with extra phrases:

- Poner algo en riesgo - To put something at risk

- Golpearse con algo / Ser golpeado con algo - To get hit by something

This concept really taught me to look up not just verb roots when learning new verbs, but their full phrases in order to use them more effectively and remember them in a way that just makes more sense.

In my experience, being immersed in a language OUTSIDE of an app helps a ton, especially through people or content you engage with in everyday life. Examples:

- Having family or friends that natively speak the language helps with understanding pronunciation and nuances of spoken language.

- Watching a movie or show you already enjoy in the target language (with subtitles), and pausing to look them up or jot them down to look them up later helps you have fun.

- Looking up covers in target languages for songs you already enjoy and seeing how others translate them—sometimes people translate literally vs a more effective, non-literal manner. I always found the more effective manner super cool.

- Buying books in the target language that you can annotate/highlight/etc freely.

- Switching the language of an app or a device's system language as a whole

→ The context of sentence and repetition

→ Mixture of repetition, learning with context of sentence, and picture.

→ Flash cards, fill in the blank

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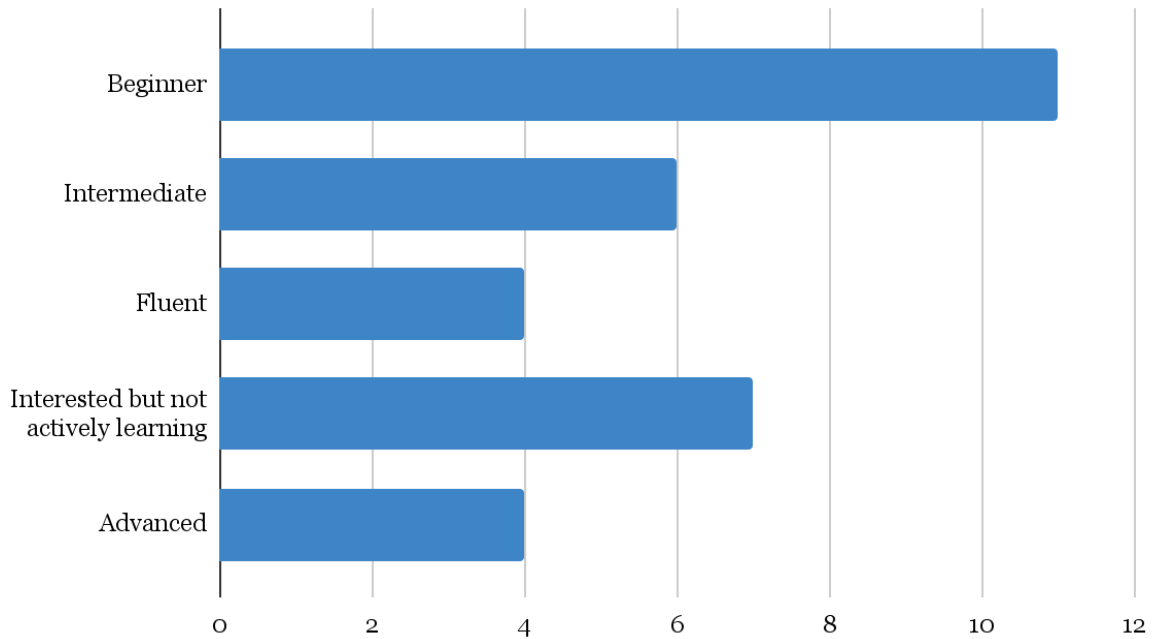
- Reading short stories and speaking, ideally dedicated speaking exercises but even just reading other types of exercise out loud while doing e.g. reading or fill in the blank
- -Flash Cards, with spaced-repetition method.
 - Having some sort of Context for the word, a personal experience is usually the best.
 - An Image associated with the word, preferably a weird one, since we remember peculiar stuff more easily.
 - Creating some sort of Pun in my main language. That helps me recall the word until it becomes natural.
- Definitely learning through the context of a sentence. Though it is nice to have variety.
- In my opinion I think spaced repetition works enough until you can practice consistent conversational techniques with a native speaker.
- All except flash cards.
- I like a multistep approach, eg flashcard then use in a sentence
- Imagines, spaced repetition and catchy phrases
- Learning within context, repetition
- flash cards
- Flash cards
- All of the above.
- Need to use it in context, especially when I need to talk about myself.
- Writing it out and speaking it out loud
- flashcards
- Learning with the context of a sentence, and repeating flashcards with pictures
- Learning with the content of a sentence, and repeating that sentence in actual interactions.
- Repetition, using the vocabulary in context, hearing/reading the vocabulary in context
- Spaced repetition and fill-in-the-blanks

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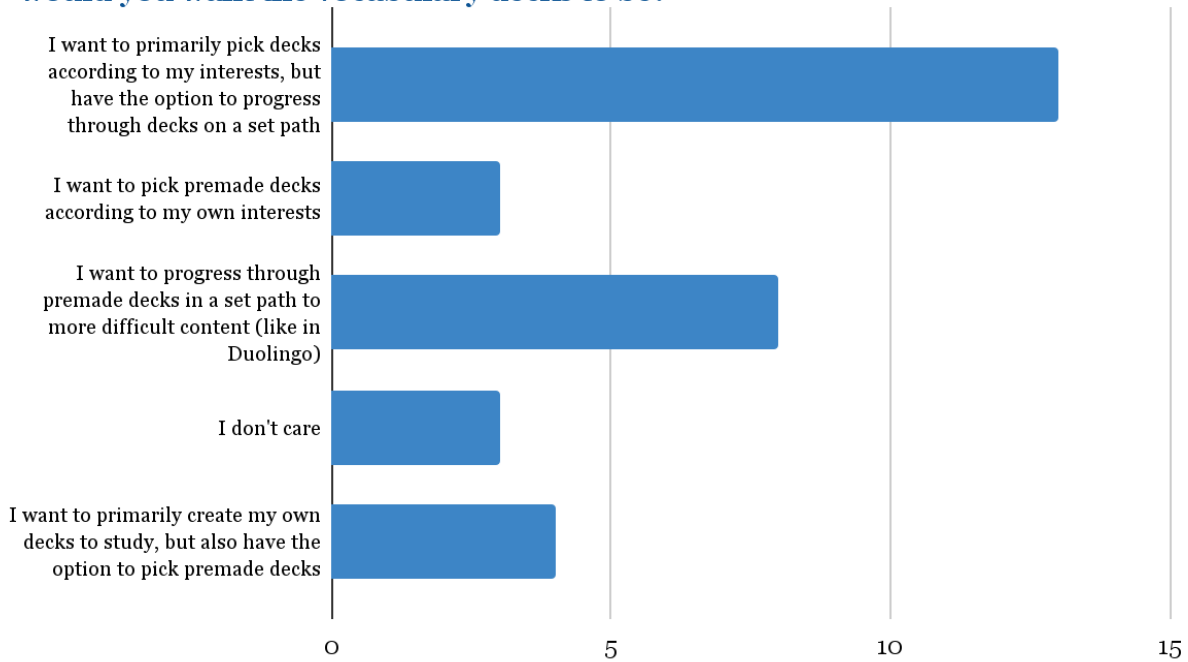
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User Survey

Question #1: What is your level in your target language?



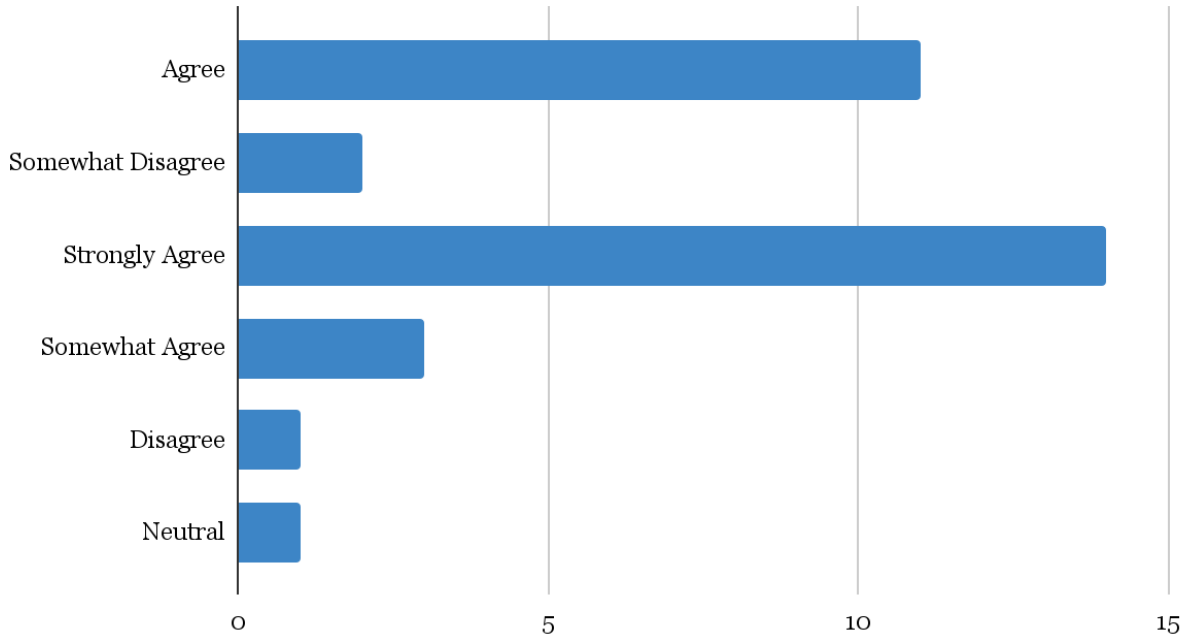
Question #2: In an app that helps you learn vocabulary, how personalized would you want the vocabulary decks to be?



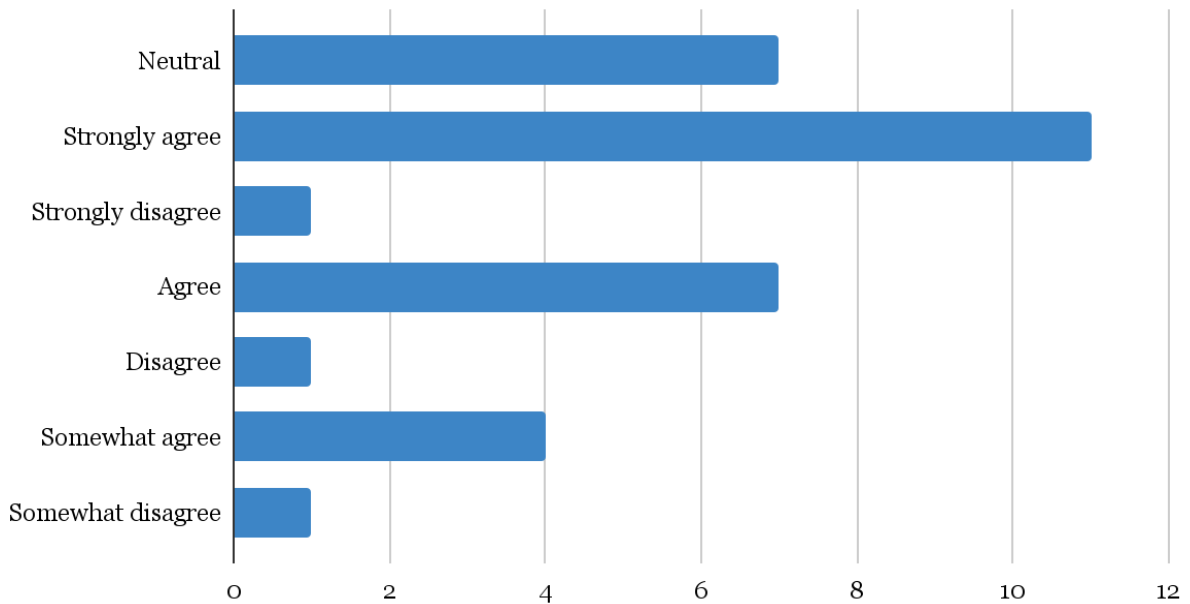
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Question #3: Images/graphics are essential to my language app experience



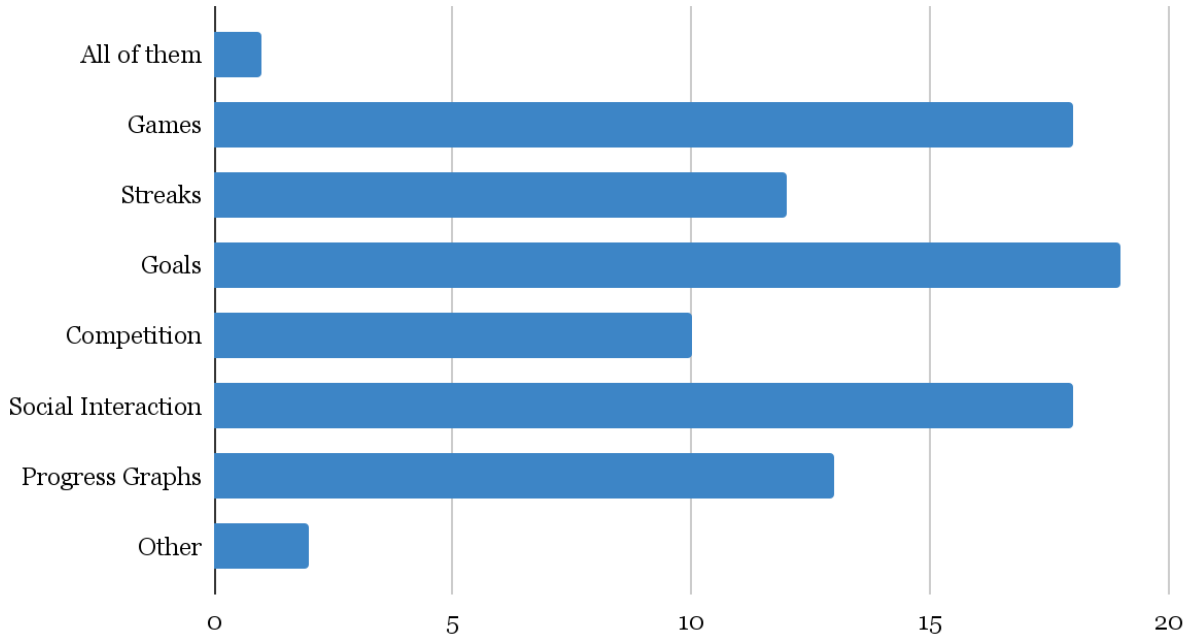
Question #4: Sound effects and haptics are essential to my language app experience. (e.g. different sounds or vibrations for right or wrong answers)



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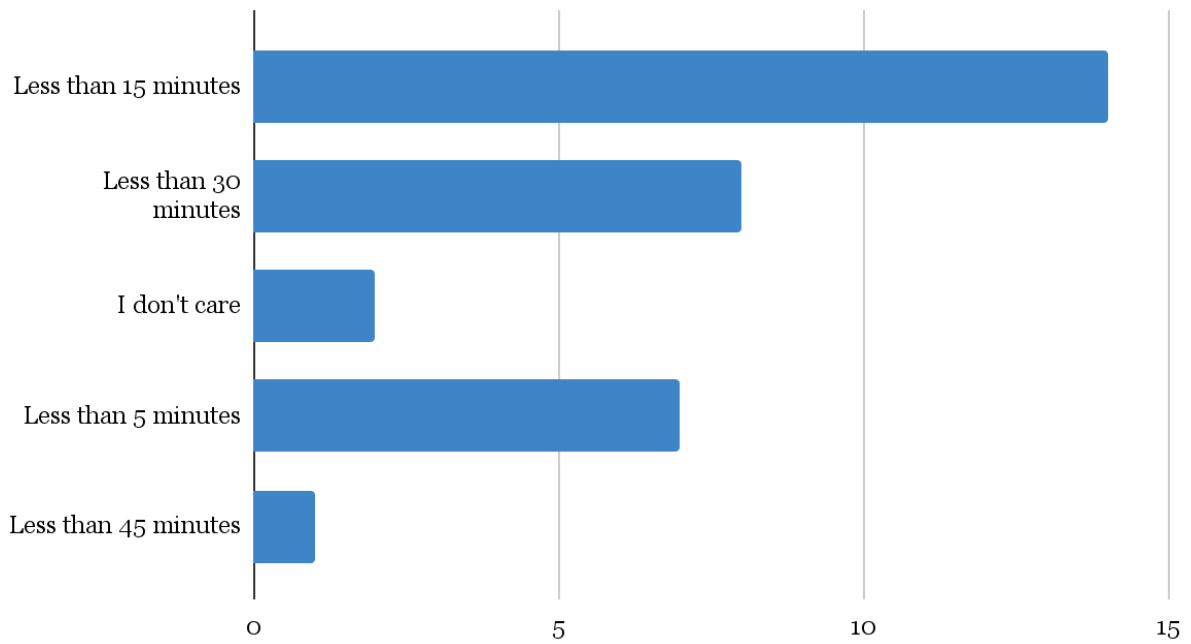
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Question #5: Choose 3 out of the following app features that you like the most:



“Other” responses: “The option to practice by reading a short text or book in that language”, “A Spaced Repetition-based approach”

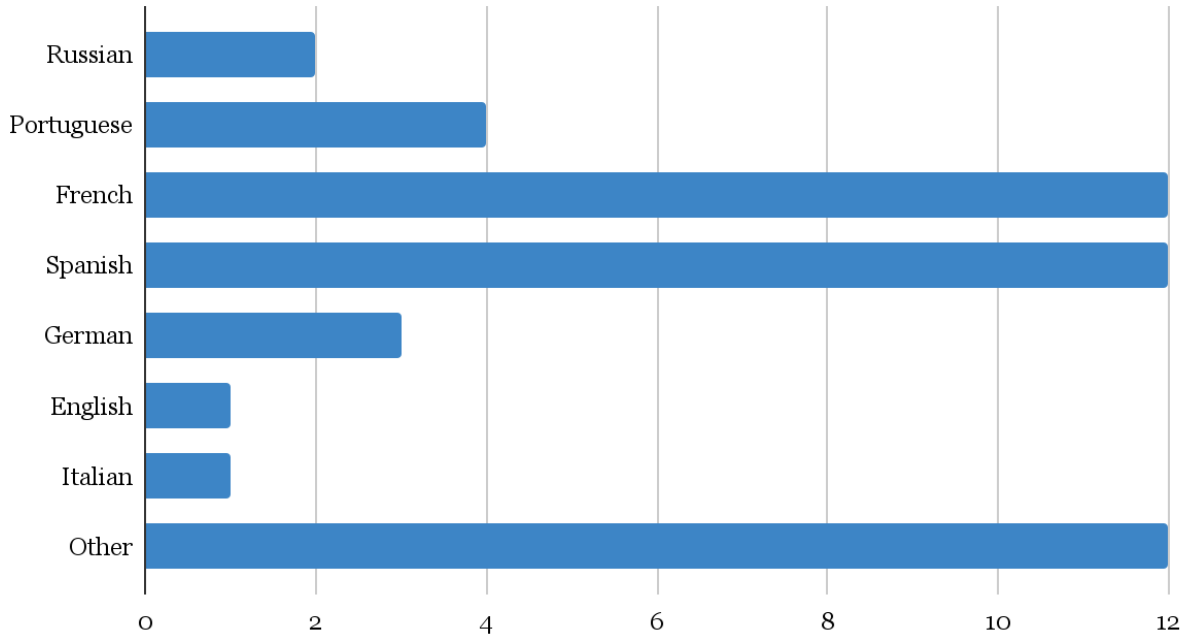
Question #6: I want my language lesson to last...



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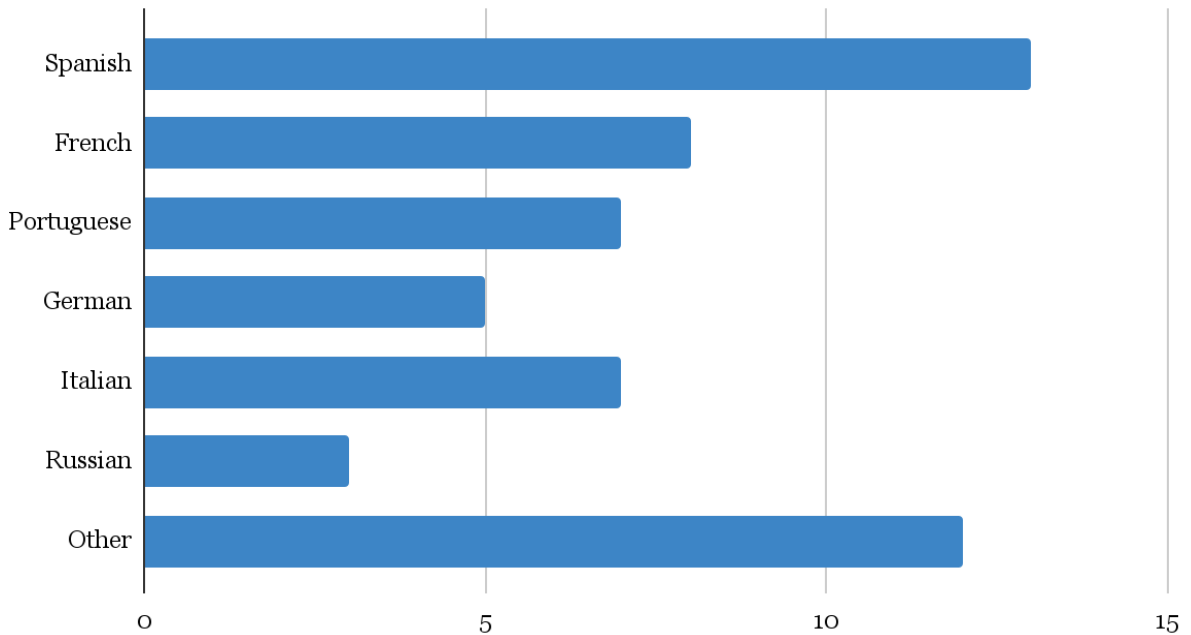
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Question #7: What language(s) are you learning?



“Other” responses: Cantonese, Mandarin, ASL (2), none at the moment, Arabic, Jamaican Patois, Danish, Korean (2), Chinese, Norsk (Norwegian)

Question #8: What language(s) are you planning to learn?



“Other” responses: Punjabi, Chinese, Danish, Japanese (5), Korean (2), Hebrew, Polish

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Stakeholder Interview Questions

Question #1: What would you contribute to the app's benefit?

Question #2: What knowledge of language learning or the app development can you bring to the table?

Question #3: Who do you think are our main competitors and what can we do to rival them?

Question #4: What does success look like to you for this language app?

Question #5: In developing this app, what do you think will be our biggest hurdles?

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Stakeholder Survey Questions

Question #1: How involved with the app would you like to be?

Answers:

- Very involved, approve everything
- Involved, oversee any changes
- Somewhat involved, have a say in the product
- Barely involved, get informed on changes
- Almost not involved, see the end result
- Not at all, I just want to have my name be associated with the project
- I don't mind either way

Question #2: How often do you practice a target language?

Answers:

- Multiple times per day
- Daily
- Weekly
- Biweekly
- Monthly
- Occasionally
- Never

Question #3: Every person should know at least 2 languages.

Answers:

- Strongly agree
- Agree
- Somewhat agree
- Neutral
- Somewhat disagree
- Disagree
- Strongly disagree

Question #4: How often would you like to be contacted for updates in the development of this app?

Answers:

- Very often (daily updates)
- Often (weekly)
- Somewhat often (biweekly)
- Not very often (monthly)
- Infrequently (large milestones)

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- Almost never (I want to see the finished product)
- Don't care

Question #5: How experienced are you in the field of education?

Answers:

- Not experienced
- A little experienced
- Somewhat experienced
- Moderately experienced
- Fairly experienced
- Very experienced
- Extremely experienced

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User Goals, Task, and Activity Required

User	Goals	Tasks	Activity Required
Language Enthusiasts	<ul style="list-style-type: none">- practice their target language(s)- learn personalized words	<ul style="list-style-type: none">-find personalized lessons-practice with app often	<ul style="list-style-type: none">-fill out personal interests-look for desirable lessons
Students	<ul style="list-style-type: none">- practice for tests at school	<ul style="list-style-type: none">-find lessons that resemble school assignments	<ul style="list-style-type: none">-select interests that the school course will be teaching
Professionals	<ul style="list-style-type: none">- practice target language for business transactions	<ul style="list-style-type: none">-find relevant words to professional subject	<ul style="list-style-type: none">-fill out interests that resemble the work environment
Language Influencers	<ul style="list-style-type: none">- be able to communicate quickly in a new language	<ul style="list-style-type: none">-learn popular/modern words	<ul style="list-style-type: none">-choose lessons that suit their interests and conversation starters

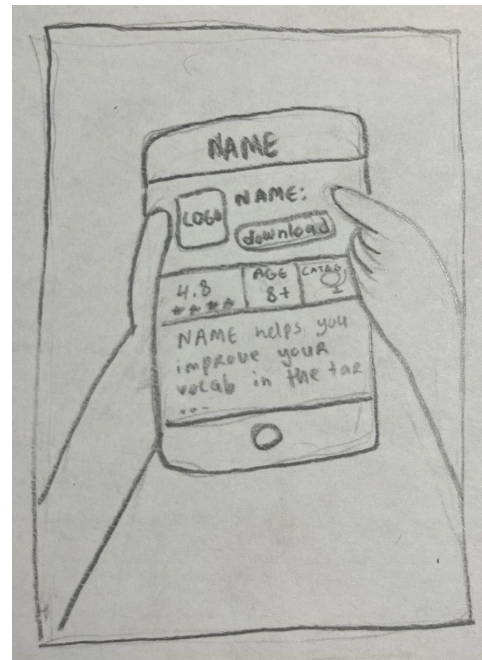
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Use Case

Critical Goals

- Choose or switch the user's target language
- Choose a topic/several topics of interest
- Complete a lesson with new vocabulary
- Complete a refresher lesson to reinforce old vocabulary

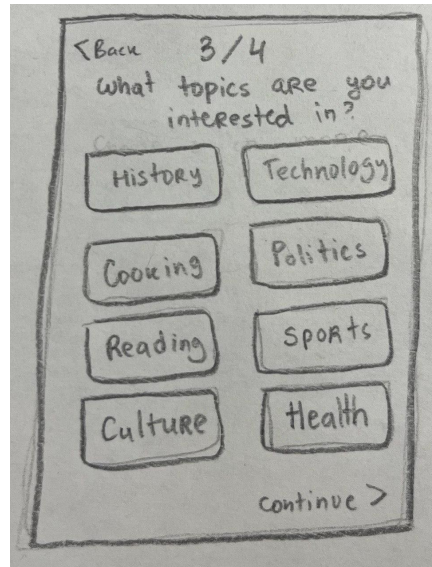
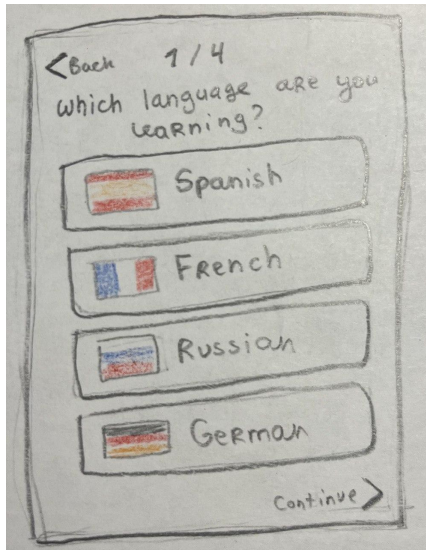


1. Ellie enjoys learning languages and has been actively learning Spanish and French. She feels like she has made quite a progress in these two languages, but she feels that she lacks vocabulary to express interests. She would love to watch YouTube videos of Spanish / French speakers on her favorite topics: history and technology. But the problem is, all of the apps she uses are teaching basic vocabulary that she already knows.

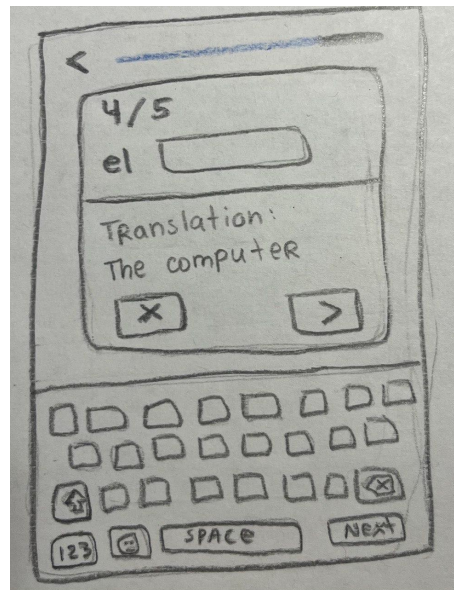
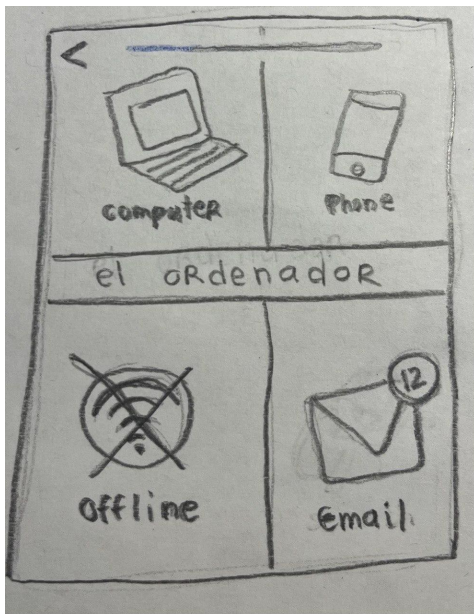
2. Ellie starts to look for a new app that will improve her vocabulary that is specific to the areas of her interest. She finds NAME OF THE APP that helps exactly with that. Full of excitement, she downloads the app.

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3. During her login process, Ellie is given a list of languages to pick from. Next, she is asked to choose topics she loves/interested in from the list of predefined topics. Hooray, the registration is over - it's time to learn new vocabulary!

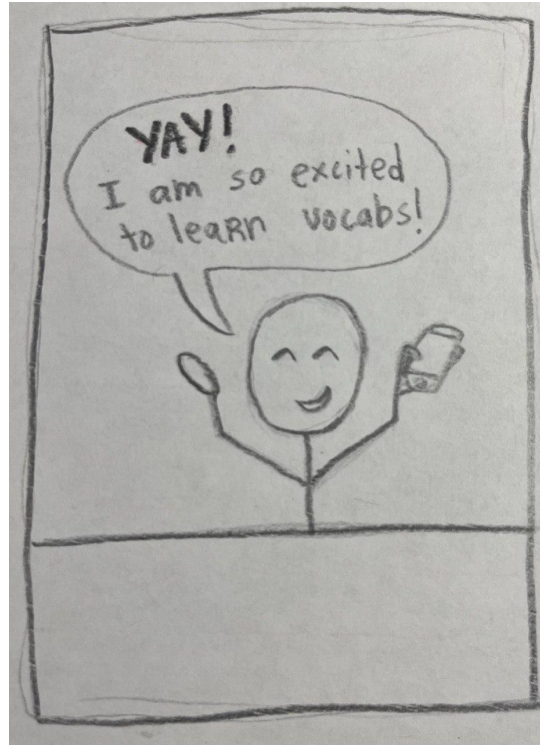


4. She starts her first lesson. The lesson is focused on learning tech vocabulary - one of the topics she chose earlier! First, she is given to match words with graphics.

5. Then the lesson transitions to a more text-based and forces her to type in the word to reinforce her learning.

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6. Once completed, she feels accomplished. She explores the app more and finds other features! She can either start learning new vocabulary in a chosen topic, answer the prompt questions or take a refresher lesson to reinforce vocabulary she just learned! Now Ellie is super excited for the future vocabs she will be learning around the topics she loves!

Task Analysis

Think Aloud Protocol

Assessed product: Lingvist - <https://lingvist.com/>

Think Aloud Protocol: <https://www.youtube.com/watch?v=pdQW87FOfDI>

Hierarchical Task Analysis

Assigned user task: “Complete a lesson in Spanish”

1. Open app- press icon (00:04)
 - 1.1. Press start learning button (00:09)
 - 1.1.1. Looks for language (00:10-00:25)
 - 1.1.2. Clicks Spanish Latin America (00:26)
 - 1.1.3. Clicks English as Native language (00:32) (**confusion: “I do think it’s confusing that it says ‘from’ and then just has the languages”**)
 - 1.2. Register for an account (00:43)
 - 1.2.1. Signing in with Apple (00:53-2:28)
 - 1.3. Continue with Apple login (02:30) (**confusion: Lingvist didn’t auto sign in after connecting Apple**)
 - 1.3.1. Hits continue with Apple button (02:36)
 - 1.3.2. Logs in (02:37-3:00)
 - 1.4. Reads intro page (03:01-03:11)
 - 1.4.1. Tests slider (03:12-04:03)
 - 1.4.2. Hits continue button (04:04)
 - 1.5. Lesson starts (04:06)
 - 1.5.1. Reads lesson preface (04:07)
 - 1.5.2. Assesses word “time” (04:09)
 - 1.5.2.1. Clicks “no” (04:22)
 - 1.5.2.2. Clicks “learn word” (04:24)
 - 1.5.2.3. Types “tiempo” (04:28)
 - 1.5.2.4. Clicks “enter” (04:34)
 - 1.5.3. Assesses word “life” (04:37)
 - 1.5.3.1. Clicks “learn word” (04:42)
 - 1.5.3.2. Types “vida” (04:43)

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- 1.5.3.3. Clicks “enter” (04:45)
- 1.5.4. Assesses word “day” (04:47)
 - 1.5.4.1. Clicks “learn word” (04:54)
 - 1.5.4.2. Types “dia” (05:00)
 - 1.5.4.3. Clicks “enter” (05:02)
- 1.5.5. Assesses word “part” (05:04)
 - 1.5.5.1. Clicks “learn word” (05:06)
 - 1.5.5.2. Types “parte” (05:07)
 - 1.5.5.3. Clicks “enter” (05:08)
- 1.5.6. Assesses word “the” (masculine) (05:10)
 - 1.5.6.1. Types “el” (05:13)
 - 1.5.6.2. Clicks “enter” (05:15)
- 1.5.7. Assesses word “government” (05:16)
 - 1.5.7.1. Clicks “learn word” (05:18)
 - 1.5.7.2. Types “gobierno” (05:20)
 - 1.5.7.3. Clicks “enter” (05:23)
- 1.5.8. Assesses word “shape” (05:24)
 - 1.5.8.1. Clicks “learn word” (05:26)
 - 1.5.8.2. Types “forma” (05:27)
 - 1.5.8.3. Clicks “enter” (05:29)
- 1.5.9. Assesses word “part” (05:31)
 - 1.5.9.1. Clicks “learn word” (05:35)
 - 1.5.9.2. Types “parte” (05:38)
 - 1.5.9.3. Clicks “enter” (05:43) (**confusion: “I didn’t realize they were repeating it”**)
- 1.5.10. Assesses word “life” (05:45)
 - 1.5.10.1. Types “vida” (05:46)
 - 1.5.10.2. Clicks “enter” (05:48)
 - 1.5.10.3. Reads “first word message” (05:50)
 - 1.5.10.4. Hits “continue” (06:00)
- 1.5.11. Assesses word “day” (06:02)
 - 1.5.11.1. Types “dia” (06:07)
 - 1.5.11.2. Clicks “enter” (06:12)
- 1.5.12. Assesses word “time” (06:14)
 - 1.5.12.1. Types “tiempo” (06:16)
 - 1.5.12.2. Clicks “enter” (06:18)
- 1.5.13. Assesses word “part” (06:20)
 - 1.5.13.1. Types “parte” (06:22)
 - 1.5.13.2. Clicks “enter” (06:27)
- 1.5.14. Assesses word “government” (06:29)

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- 1.5.14.1. Types “Gobrieno” (06:30)
- 1.5.14.2. Clicks “enter” (06:33)
- 1.5.14.3. Types correct answer “gobierno” (06:34)
- 1.5.14.4. Clicks “enter” (06:42)
- 1.5.15. Assesses word “shape” (06:44)
 - 1.5.15.1. Types “forma” (06:45)
 - 1.5.15.2. Clicks “enter” (06:47)
- 1.5.16. Assesses word “country” (06:49)
 - 1.5.16.1. Clicks “learn word” (06:52)
 - 1.5.16.2. Types “pais” (06:53)
 - 1.5.16.3. Clicks “enter” (06:58)
- 1.5.17. Completes placement test (06:59)
 - 1.5.17.1. Hits “continue learning” (07:07)
- 1.5.18. Prompted for free trial (07:08)
 - 1.5.18.1. Hits “no thanks” (07:13)
- 1.5.19. **Confusion/Error**: “I’ve finished Monday. That’s a lesson?” (07:20)
- 1.5.20. **Confusion**: looking to see if lesson is complete (07:21-07:55)
 - 1.5.20.1. Looks at progress tab (07:57-08:10)
- 1.5.21. **Confusion**: lost in app (08:10-8:19)
- 1.5.22. Clicks “learn” (08:20)
 - 1.5.22.1. Gets blocked by paywall (08:21)
- 2. Closes app (08:42)

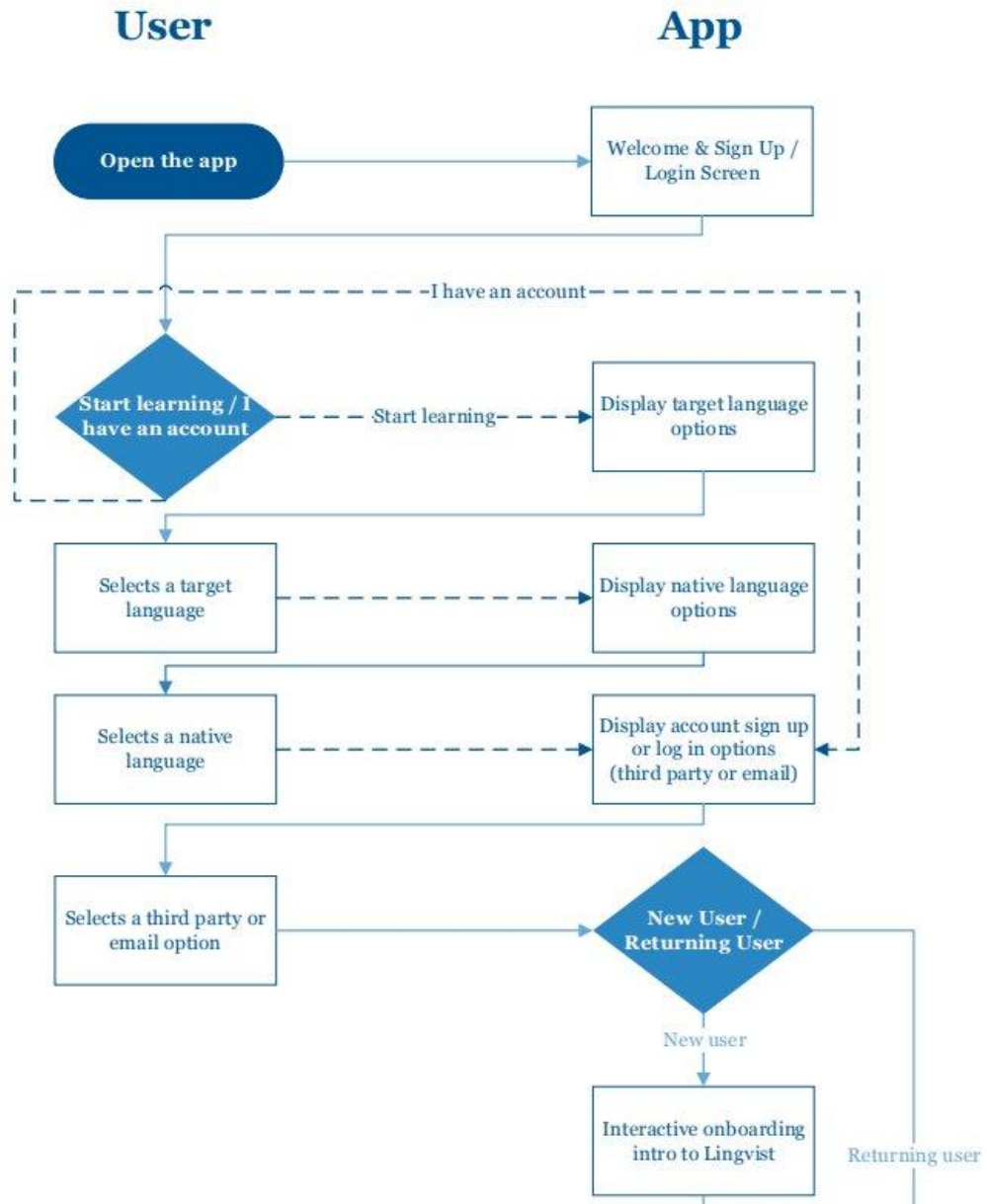
Error Count: 1

Confusion Count: 6

Total Task Duration: 8:42

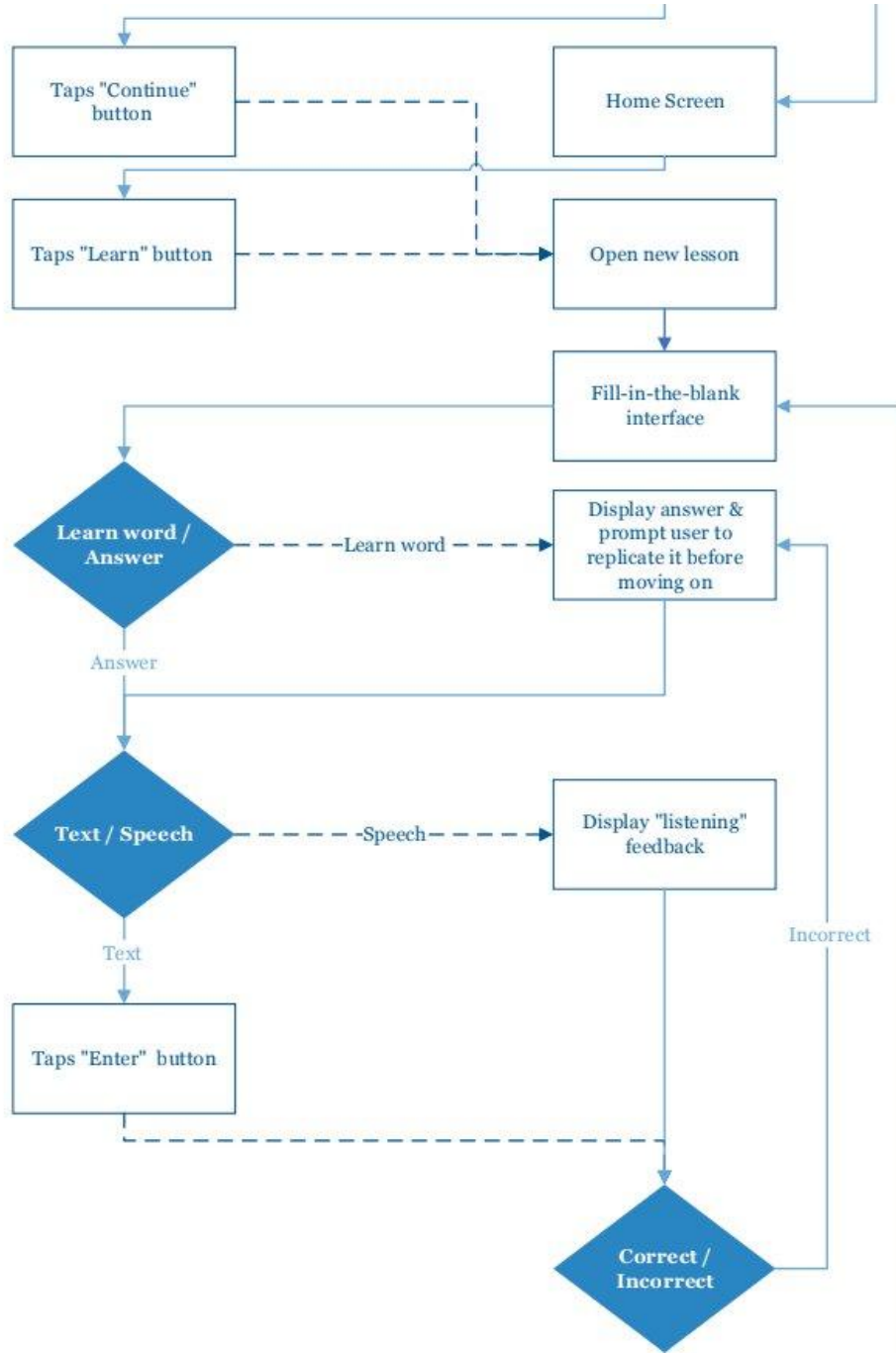
Interaction Analysis

Link to [Interaction Flowchart](#) PDF.



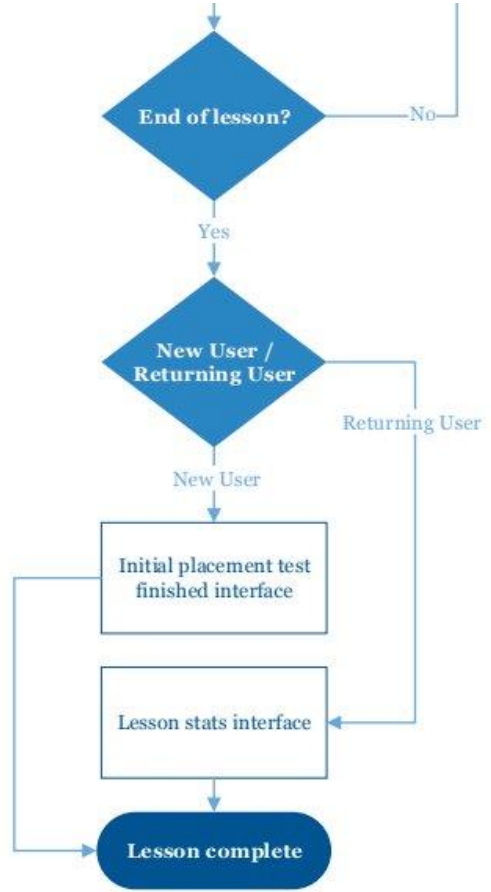
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UX Design Evaluation (Fluently)

Designs that Worked

- Fill in the blank lesson feature was easy to use
- The app is aesthetically pleasing with bright colors and clean lines. Enough visuals to not be boring, but not a crowded app
- The dark mode aids in accessibility and accommodates user preferences based on their phone settings.
- Interactive introduction that helps the user see visually how much they can improve using the app
- When the user inputs the synonym of the vocabulary, the app mentions that the user is correct, however encourage them to input another word

Design that Needs Improvement

- The paywall limited many features for the user, including completing a lesson after finishing a placement test.
- The lesson ends were vague. Lingvist took the user back to the main menu after completing the test and left the user confused on if he had finished a lesson.
- The sign up process was very lengthy and took around the same time as the lesson itself.
- The slider before the placement test was too sensitive for the user
- Some of the sentences in the interactive introduction cut off at the end. Developers should've paid closer attention to such detail.
- No tutorial at the start of the lesson
- The free trial prompt opens what looks like a new lesson. When the user declines, it takes him back to the homepage, which causes confusion

Data Dictionary

Homepage

- **Prompt of the Day** - an optional free-response prompt based on user's interest to practice building their own sentences from scratch
- **Today's Goal** - editable goal/task for the user to complete that day

Profile

- **Profile** - contains user's interests and language level
 - **Target language** - the language that the user wants to study
 - **Languages** - languages the user is learning
 - **Interests** - areas of which the user prefers to study their vocabulary, linked to the topics and decks they are studying
 - **Bio** - the user's biography
 - **Username** - a unique set of alphanumeric characters that identify a user
- **Followers** - list of accounts the user is following
- **Following** - list of accounts that follow the user
- **Manage Friends** - lets user add or remove the friends that they follow
 - Search by username
 - Search by interest

Lessons

- **Topics** - the topics of interest (such as Technology, Home, Food, etc.) that the user chooses to study, which contain related sets of vocabulary words (decks) and contextual sentences from which to study them
- **Decks** - a set of vocabulary words for the user to learn in their target language, related to a topic
- **Lesson** - a short course the user goes through to learn the vocabulary

Notifications

- **Daily reminders** - a push notification that will remind the user if they have not practiced that day

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- **Friend notification** - informs users of friends' progress

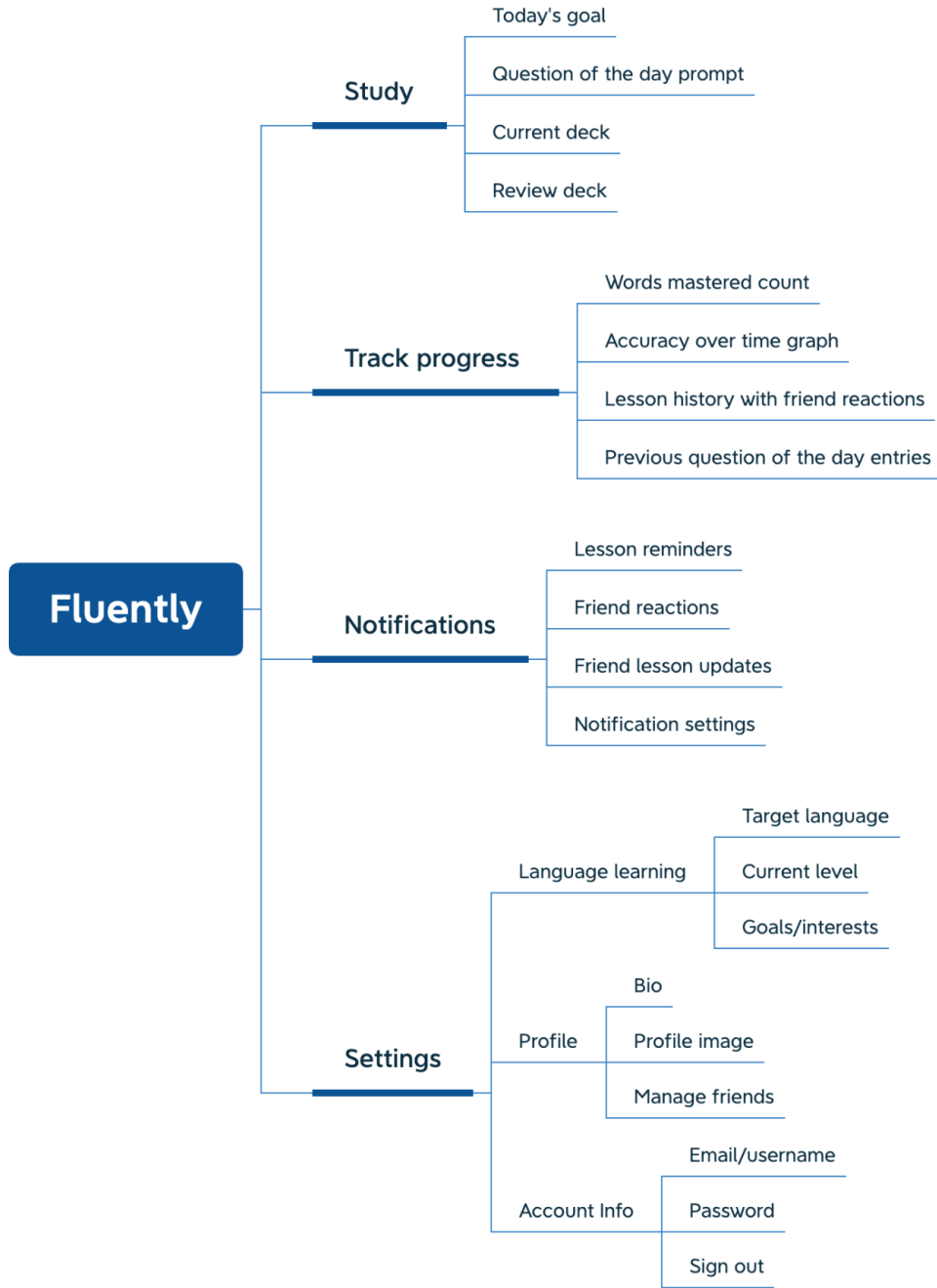
Progress

- **Accuracy** - how correct the user was throughout the lesson
- **Language level** - how advanced the user is in their target language
- **Progress** - a graph that displays user's progress at the top of the homepage
- **Previous prompts** - shows the past prompts that the user answered so they can track their progress

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Information Architecture



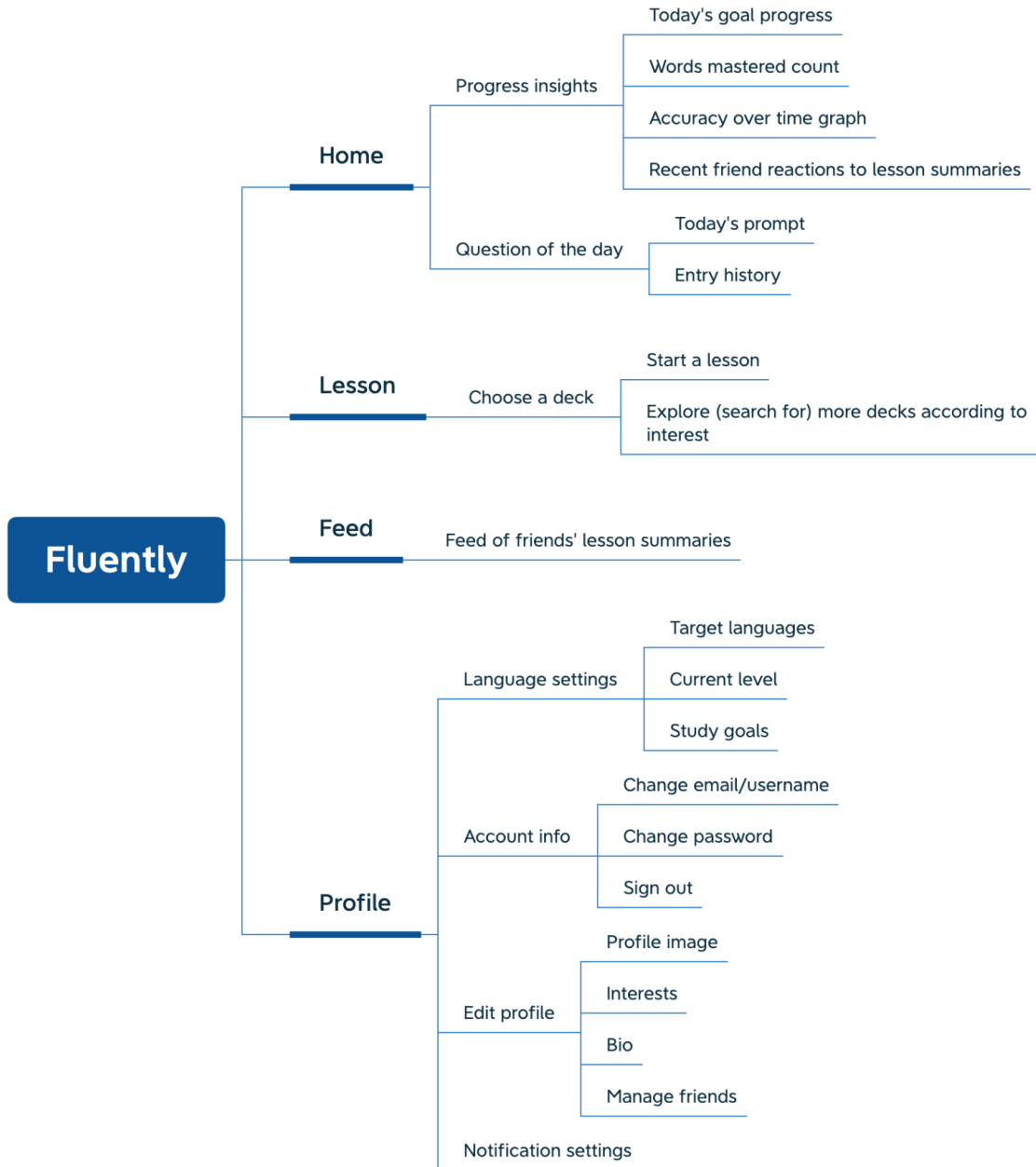
Presented with xmind

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Navigation

Navigation Structure

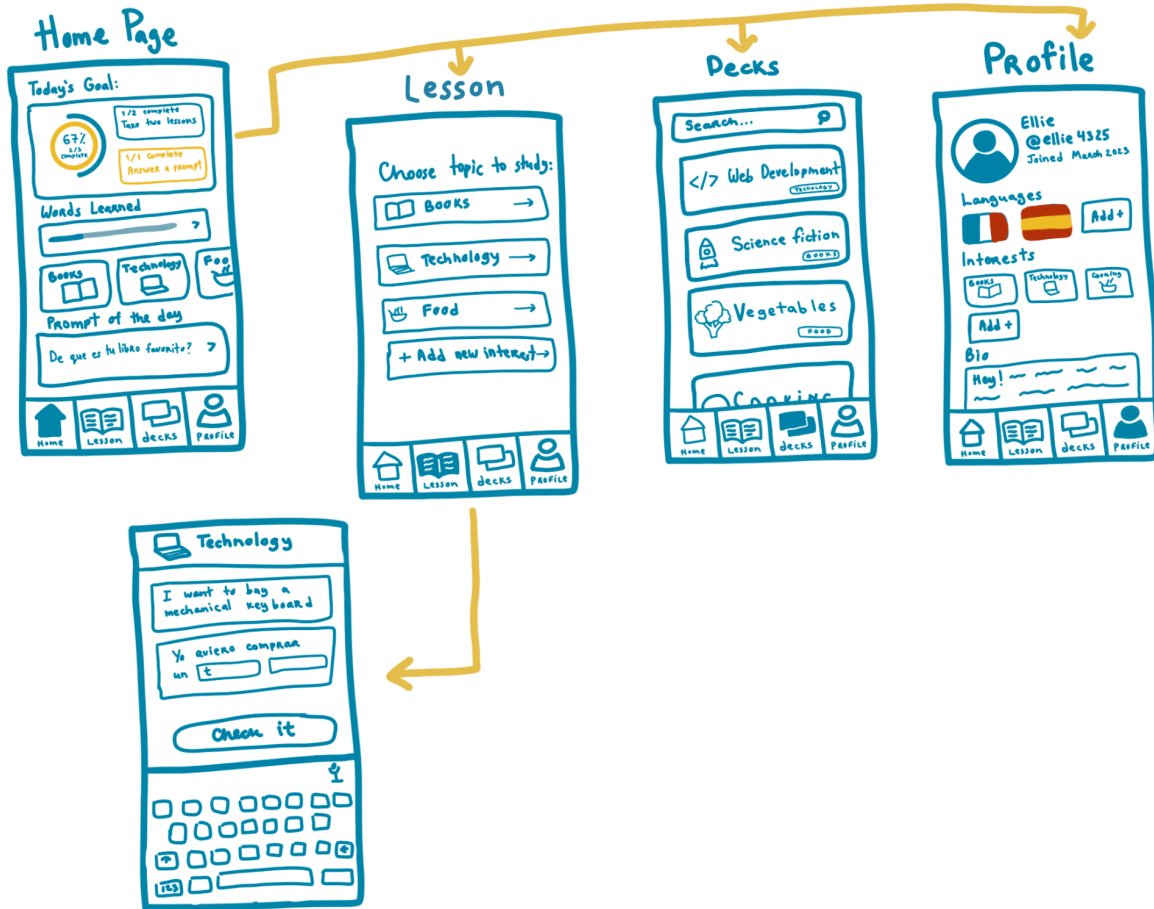


Presented with xmind

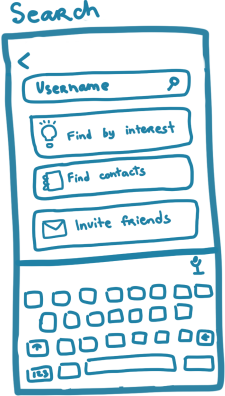
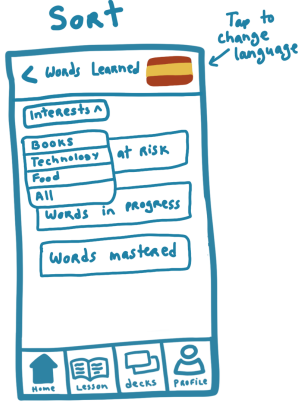
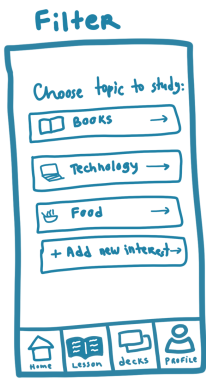
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Navigation Wireflow



Search, Sort, and Retrieval Results

<h2>Search</h2>	<ul style="list-style-type: none"> • Friends by username • Friends by shared interests • New languages to learn 	
<h2>Sort</h2>	<ul style="list-style-type: none"> • Friends alphabetically by username • Decks alphabetically by topic • Words learned by recency learned • Words by target language • Easiest learned words to most difficult words (and vice versa) 	
<h2>Filter</h2>	<ul style="list-style-type: none"> • Friends by interests • Words by interest • Words by target language • Words by difficulty learned • Words by type (e.g. nouns, verbs, etc) 	

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User-Centered Design

User Feedback	Design Improvement
The end of the lesson was confusing. There was no clear indication of if the lesson was finished or not.	Have a page at the end of the lesson saying something like "Great Job! You finished a lesson!"
The sign-up processes took a long time	Have users create a username, choose interests, and choose target language only. No third-party login
Home page is cluttered	Make more systematic/ themed tabs
Usability blocked by paywall	Don't limit the user's time based on a paywall. The core of the app will always be available.

Target Technology Platform of Our Users

Hardware requirements

- Wi-Fi
- Touchscreen, speaker and microphone
- CPU (Central Processing Unit): A11 Bionic or equivalent, but anything above is highly recommended
- RAM (Memory): 4 GB, but 5 GB and above is highly recommended; 60 MB more available space
- Minimum Screen size: 4.7 inches

OS requirements

- iOS 12.0 or later
- Android 10.0 or later

Software requirements

- Fluently Application download

Network requirements (download speed)

- At least 5 mbps
- Greater than 8 mbps is recommended
- Latency below 100 milliseconds (ms) and below 50 ms is very good

Security requirements

- No data is shared with third parties
- Passwords are encrypted and never visible when typing
- Secure database
- No sensitive personal information

Economic/payment requirements

- App is free to download

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- Possible purchases to upgrade app

Legal considerations (US Copyright Law) and issues about AI

All app content, other than text will be copyrightable including the code and the visuals. We will get language and translation content from an API or dictionary.

AI might take our role by easily translating text or audio for people, so they might not need the app. However, this is unlikely, as many people still choose to learn languages as a hobby or simply to better themselves. Additionally, we currently do not have any plans to implement AI into our product, but we may implement AI in the future. AI art generators, for example, might be used to generate images to assist in visualizing vocabulary. A chat AI may also be used help to check the accuracy of users' more free-response inputs, such as their answers for Daily Prompts. Nonetheless, these features are not guarantees and would require further development implementation and legal exploration.

Constraints & Opportunities

The most significant opportunity that our product provides for users is to enable them to learn more personalized and modern words in another language that are not found in other apps within the market, which are geared towards generalized language-learning content. Additionally, our product will allow users to connect with each other for meaningful, but minimal, motivation for distraction-free learning. And lastly, by creating an mobile application with relatively short lessons, users are able to learn from anywhere at any time.

One constraint of our app is that it is very specific, so it may appeal to a smaller niche of people than other popular language-learning apps like Duolingo or Babel. It also can't be exhaustive, even within personalized subjects. For example, a web development vocabulary pack might not mention all web development coding languages, or might focus on the front end when the user is a back end developer. However, these setbacks will still provide the user a better starting point to learn additional words and phrases in their target language by interacting with the real world in comparison to other language-learning applications.

User Cost

The market that we're aiming for will likely already have the minimum hardware and software required to run the app software. The application price itself will be a freemium model, with limited features available free of charge from downloading the app, but they will have an option to purchase a premium subscription to access more features and support the company.

Therefore, we expect that the main revenue for our operation will come from showing advertisements at the end of lessons in the free version of the app, with the premium subscription offering some additional revenue for some time. However, as the app grows more popular, the premium subscription may eventually become the primary source of revenue.

Development & Operation Costs

The app is going to be distributed through the App Store for Apple users and Google Play for Android users. The cost of publishing an iOS app on the App Store is \$99 per year. The cost of publishing an Android app in Google Play is \$25 as a one-time developer fee. The App Store also takes 30% standard commission in the first year for subscription based applications. After one year, the commission falls to 15%. Google Play Store takes 15% commission.

Additionally, we may use the Deepl API for custom translations, such as checking a journal entry for grammar accuracy, which may cost extra. Currently, however, plans are to use the free Tatoeba API for the lesson decks. An appropriate database plan will also be extra once the app is launched.

Design Choices Based on Hardware Constraints

Due to Fluently being primarily a mobile app, screen real estate will be fairly limited, and we will have to limit the amount of information presented on the screen at a time to avoid clutter and distraction. We will use flashcard-style questions, with one card consisting of a maximum 3 sentences shown at a time. The flashcard text will likely use a fairly large font size to avoid eye strain. A text editor for the journal feature would also likely be fairly minimal. Graphs and diagrams describing the user's progress will likely be fairly simple, as well. Also, since mobile devices are primarily touch screen, buttons and input elements will be bigger to avoid fat-fingers.

What do these constraints/opportunities allow/prevent in the design?

Because of the more niche market share of intermediate learners and the ability to personalize their content, we don't have to worry about over-designing lessons. Each card will be presented the same, without the need for various types of input like other apps that try to appeal to a more general audience. This will make the interface much more predictable and simpler for the user to focus on the content itself. Since users are also more knowledgeable in their target language, we can use the journal feature with prompts to encourage them to try constructing their own sentences and get used to using the language more as it relates to them.

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Quantifiable Goals

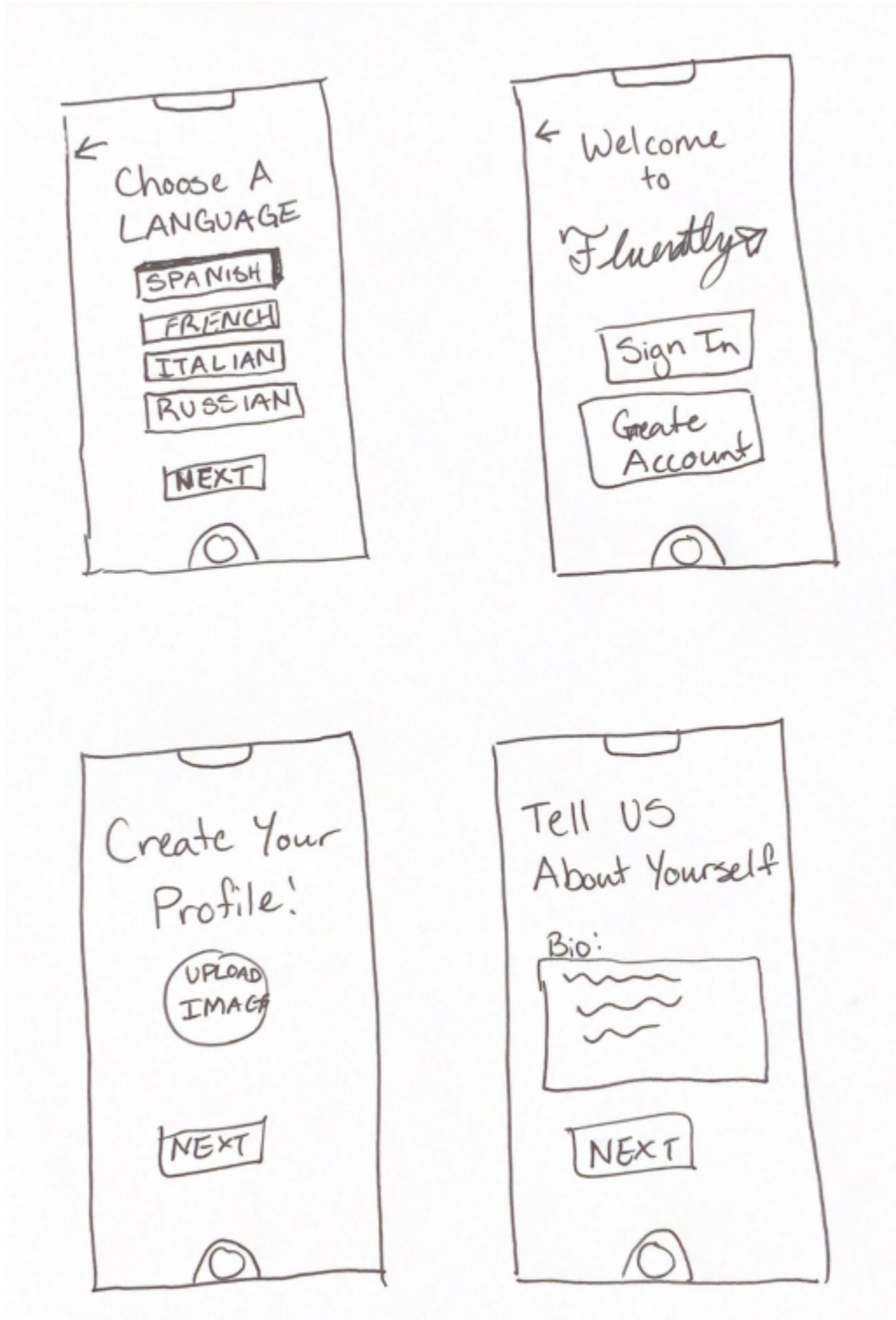
To keep perspective of our mission as our product develops, here are the first set of our quantifiable goals and outcomes that will help us for the near future:

- Launch the app in the app store by summer 2024
- Profitable (revenue outweighs cost) within 2 years of launch
- Reach 5K downloads across app stores within 3 years of launch
- Reach 1K reviews across app stores within 3 years of launch
- Maintain a minimum of 4.5 rating in app stores
- Branch out to other platforms (potentially web, tablet, or smartwatch) within 5 years of mobile app launch

If we fail to meet any of these goals, we will re-evaluate our course of action to try to get back on track. If we are unable to be profitable within 2 years of launch, it may result in the failure of our business and we may be unable to continue development.

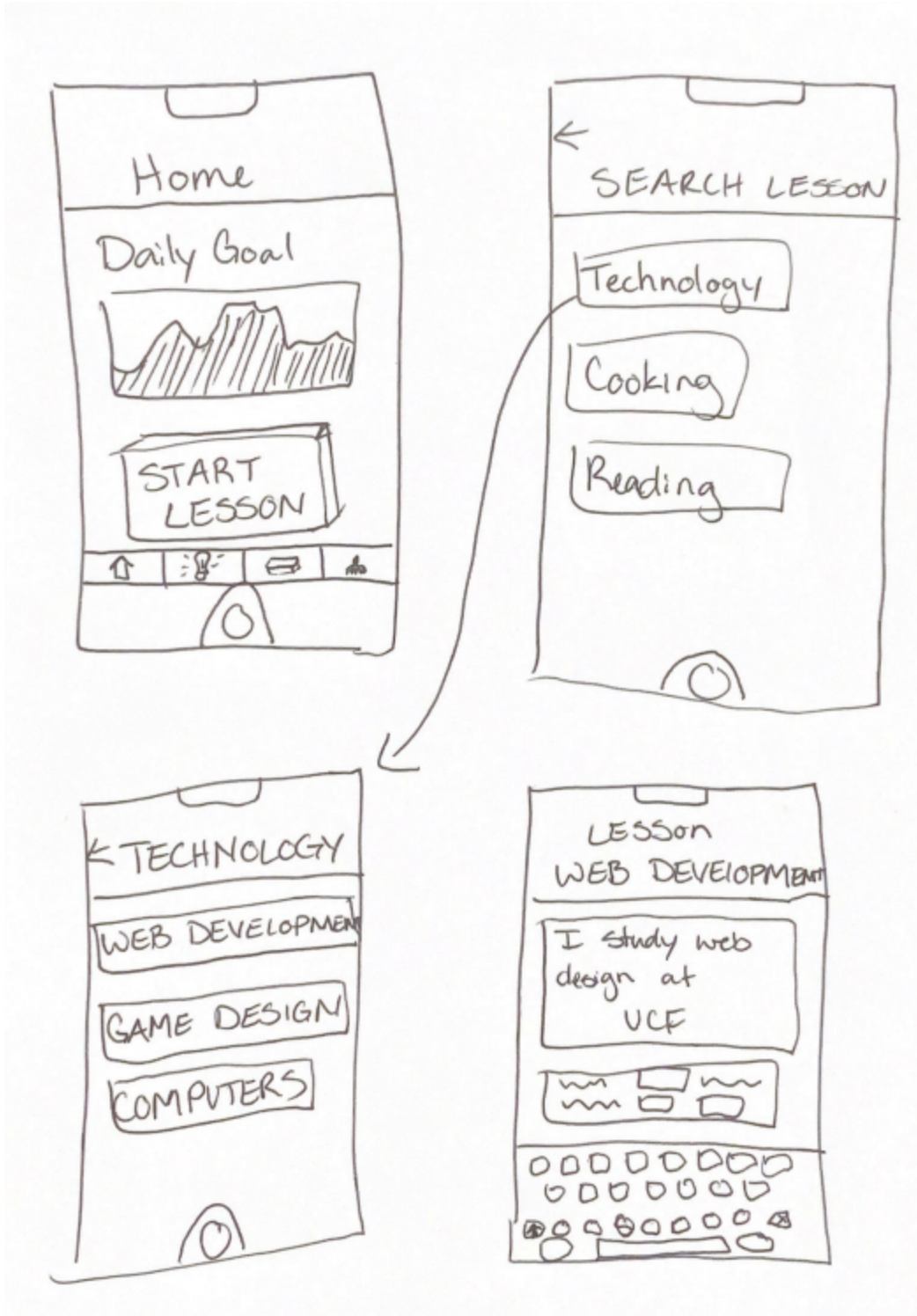
Low-Fidelity Paper Prototype

Paper Prototype



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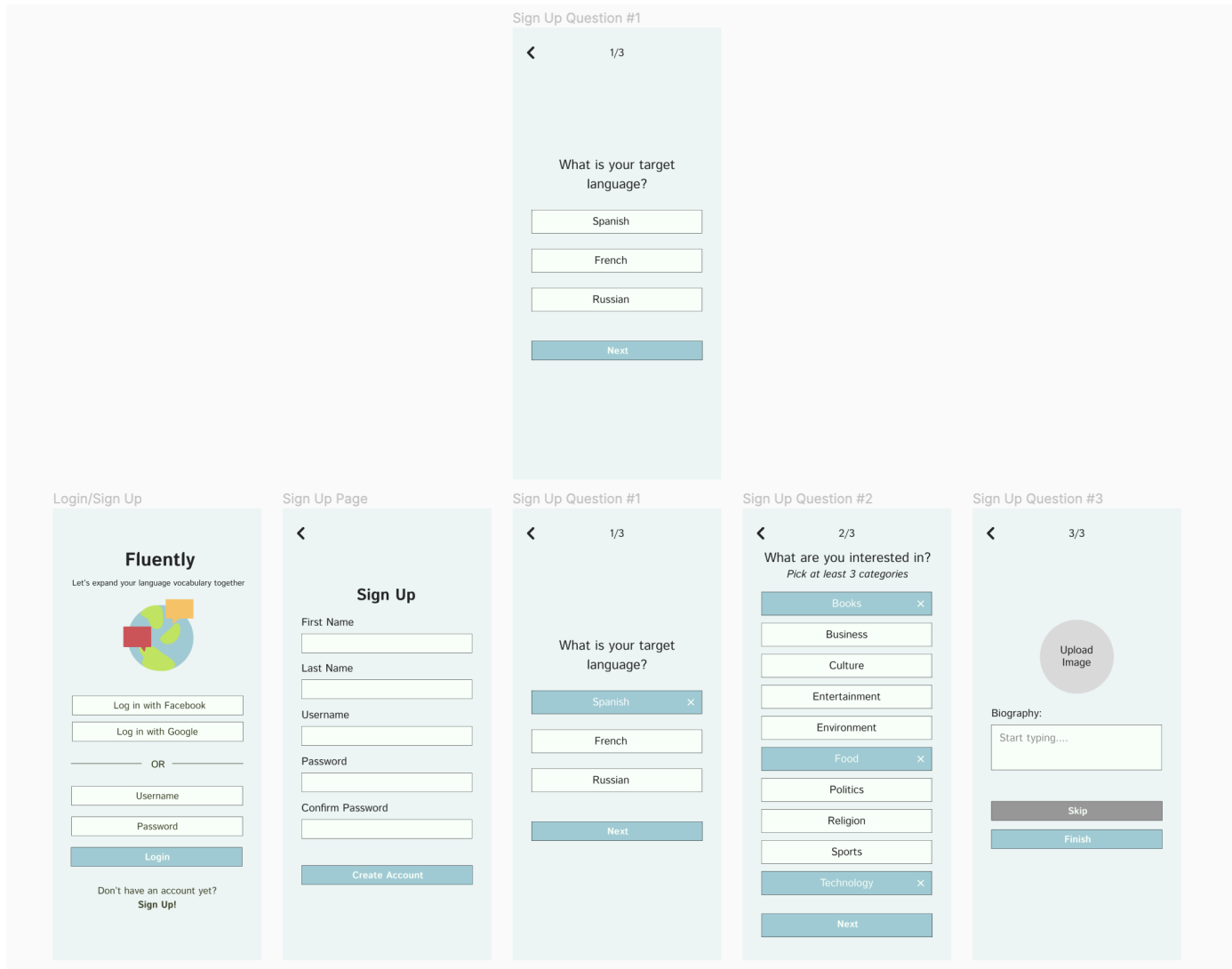
Black and White Prototype



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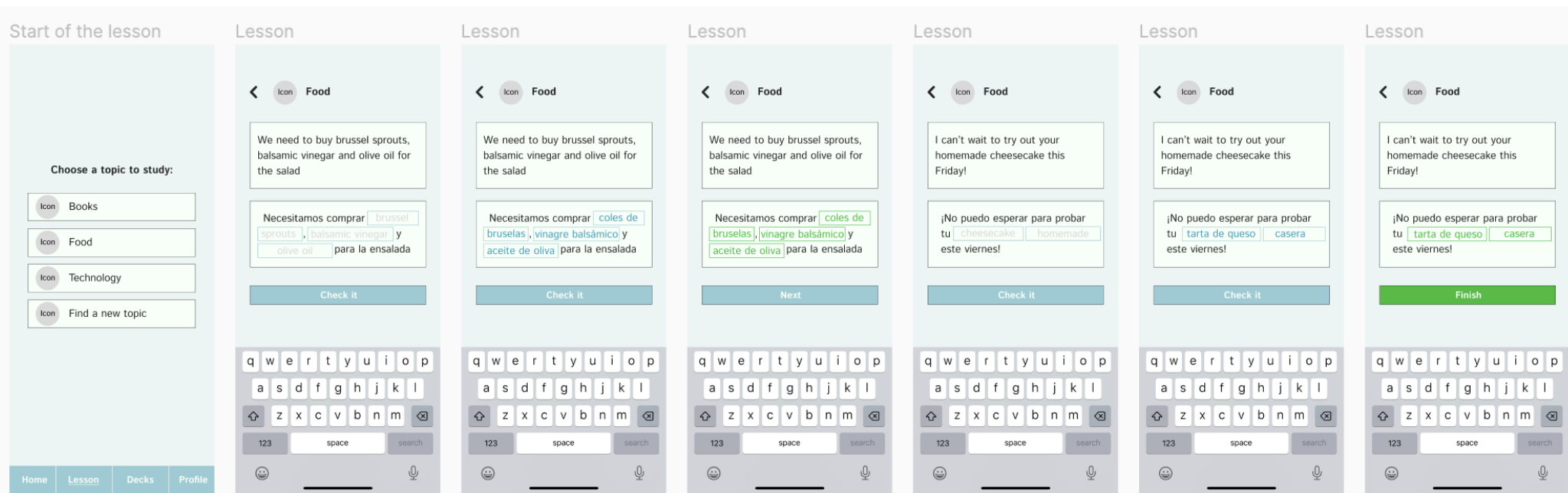
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First Draft Color Prototype



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Think aloud protocol

Goal:

- 1) Complete a lesson in Spanish in the topic of Food
- 2) Explore the App
- 3) (Give general feedback)

Link to think aloud protocol of a user using Figma prototype:

<https://youtu.be/vmy40ryaUEM>

Task Analysis - Low-Fidelity Prototype

Goal: User wants to learn about how to communicate in Spanish about food

Protocol:

1. Click on Spanish and then Next **(00:10)**
 - 1.1. Looks for Food topic **(00:11 - 00:25)**
 - 1.2. Explains why since Food was in a blue box, his eyes missed it for a bit **(00:35) (confusion: prototype)**
 - 1.3. Clicks next (00:36)
 - 1.4. Is confused about whether he should finish Biography. **(00:50) (confusion)**
 - 1.5. Hits next after hitting skip, but thought skip would just skip it **(00:52) (confusion: prototype)**
 - 1.6. Explains confusion regarding skip and next button **(01:04)**
 - 1.7. On home page looking for food lesson. **(01:20)**
 - 1.8. Does lesson, but is confused about how keyboard is a simple click and finish rather than having him type everything. **(01:21 - 02:05) (confusion: prototype)**
2. Is back on Home Page and begins exploring **(02:06)**
 - 2.1. Explores the home page by scrolling and touching around **(02:31)**
 - 2.2. Clicks on prompt of the day **(02:32)**
 - 2.3. Heads back to home **(02:36)**

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- 2.4. Is confused about what he can click on and can't and explains (02:37 - 03:01) (**confusion: prototype**)
- 2.5. Figures out what he can click on and can't click on and explains (03:02 - 03:17)
- 2.6. Clicks on profile but does not know how to head back to home (03:18 - 03:30) (**Error: stuck. No return**)
3. Feed back (03:31 - 04:27)

Confusion Count = 5

Error count = 1

Total duration = 4:27

2:05 for lesson

1:25 for exploring

What user liked:

- Layout - "simple and effective"
- Natural prompts - "boxes looked like I should type in them"
- Home page has a lot of information

Errors from Task Analysis:

- User got stuck - No back button on profile page

Improving the Design:

The users was mostly confused by the constraints of the prototype (ex. Not being able to click on everything or having freedom to choose topics).

As for flaws in the design, the most notable confusion came from Today's Goal being too prominent on the screen. Since the goal for users is to complete a lesson(s), the lesson component should be bigger and/or stand out more.

Interview:

Upon interviewing the user, we identified that many of the errors came from learning the limitations of the prototype, but we worked with his input of the error on the profile page and the confusion on the home screen to improve out design.

We also made sure that each screen provides a back button to get back to the home screen or the previous page.

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We have concluded that making the lessons component more prominent will reduce the time on task, and draw natural eye movements towards the component, as well as adding more navigation from the profile page so the user doesn't get stuck.

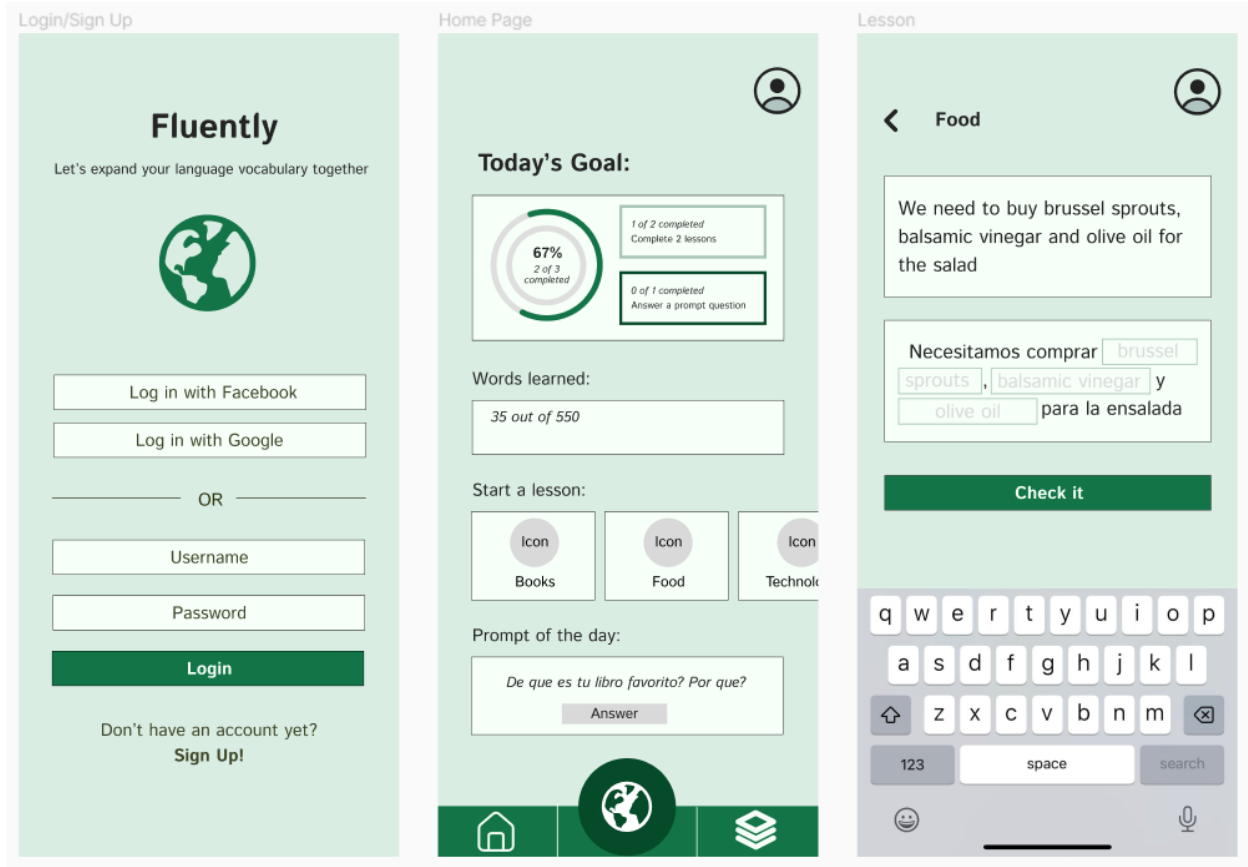
These changes have helped immensely in making the app easier to use.

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High-Fidelity Drafts

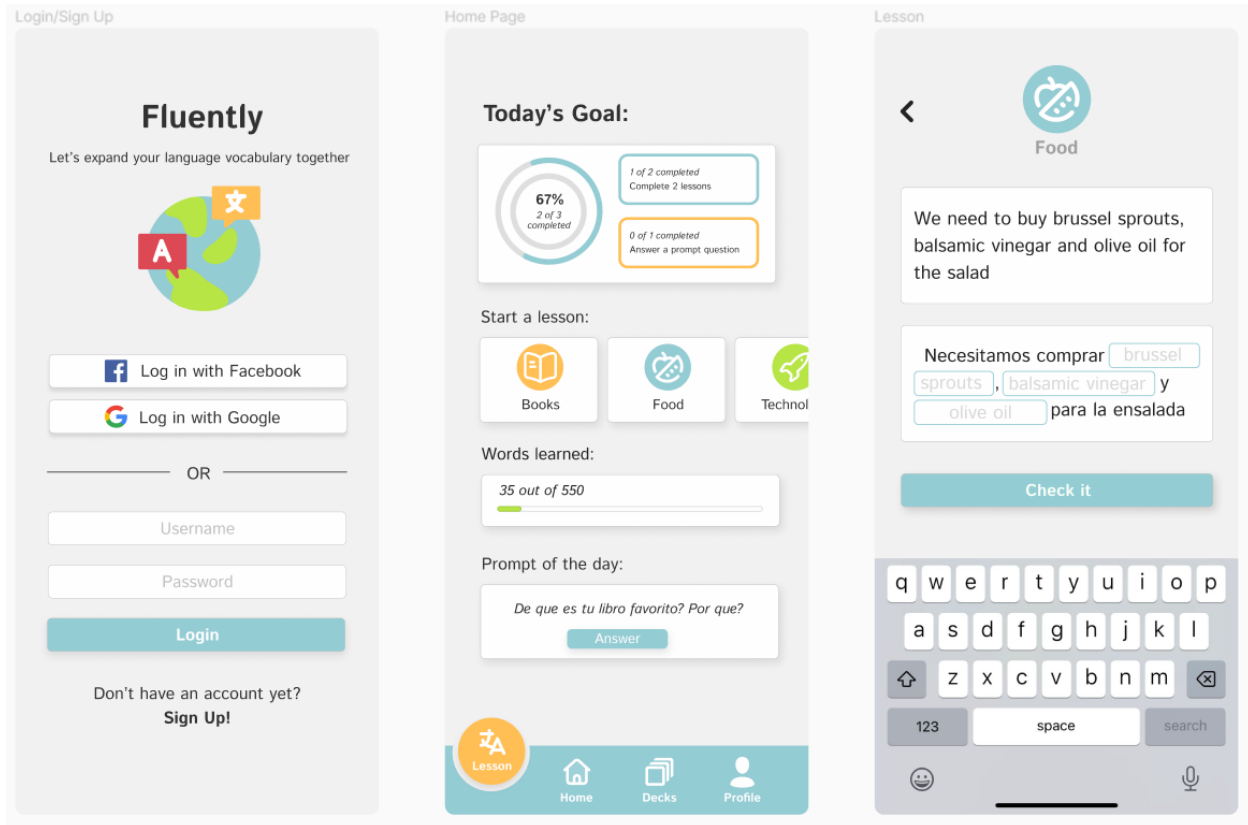
Conservative



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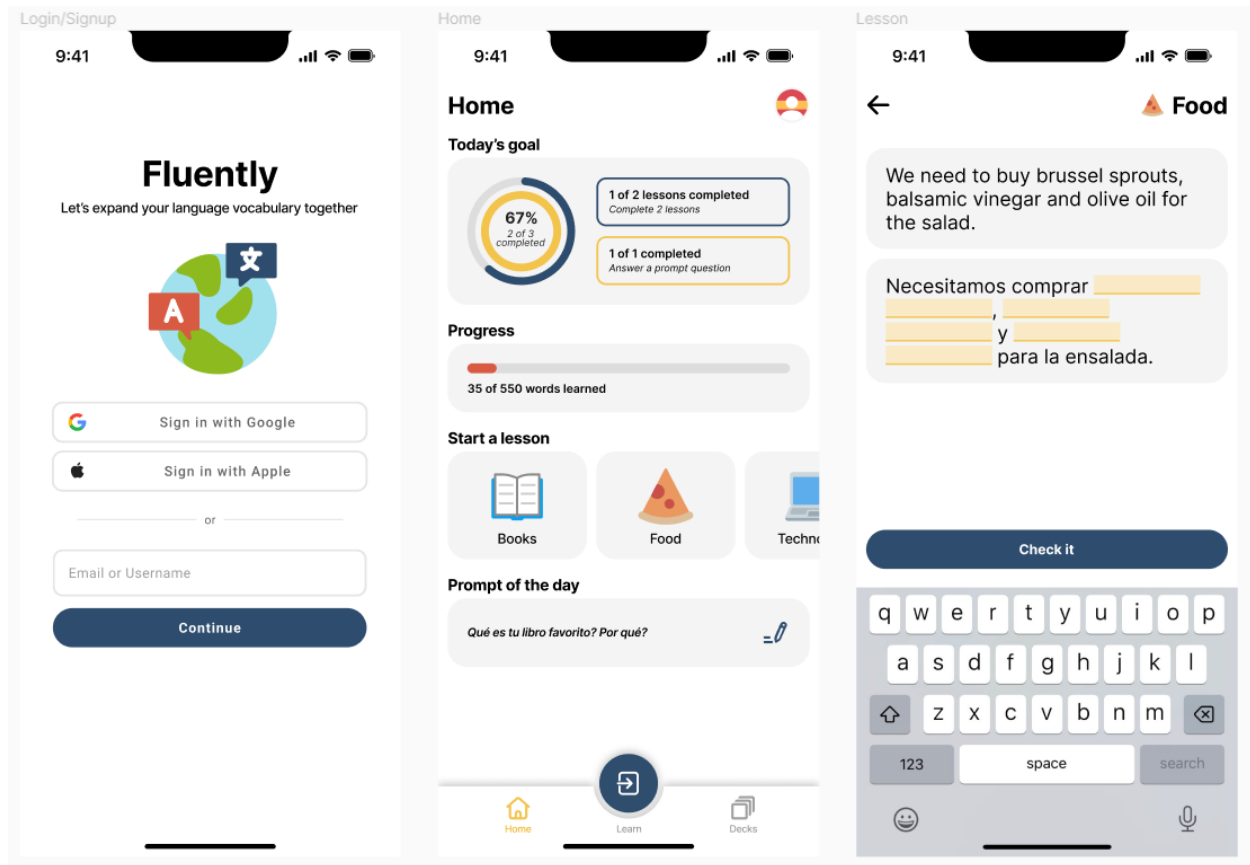
Moderate



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Wild



User Feedback

User 1

User 1 liked the conservative design best because he said it was much easier for his eyes to identify different parts of the app. He liked the simplicity. For the moderate design, the user didn't find enough contrast between the light blue and the white colors in the app, which shapes and buttons more difficult to make out. He liked the color palette, and said that he would prefer it over conservative if it had a higher contrast. The user said that the wild design fixed the problem he had with the moderate one but, it was too grating on the eyes (lower contrast).

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User 2

User 2 liked the wild design because it was very bold and had the most personality. He liked that colored pizza icon for food as it stands out. He also liked the progress bar in the wild style.

User 3

User 3 liked the moderate design best because it was the most balanced and had a “bubbly” look to it. The conservative one lacked color diversity and he didn’t like the icons in the wild design. The orange color in the lesson screen was too distracting. He liked the icon/title pair in the upper right corner of the wild design.

User 4

User 4 liked the moderate design, because she liked the color scheme the best. She wasn’t a fan of the conservative one because she felt that it was too much green. But she liked the general direction of the overall design in all three.

User 5

User 5 liked the conservative design best. He found that the simple color palette was easy to look at. He found the colors of the moderate design too “washed out” but also mentioned that he’s not a fan of pastel colors

User 6

User 6 liked both the moderate and conservative designs, but preferred the moderate one overall. She really liked the way the color scheme was pulled together and felt that it was fresh and fun. She also found that the circles around the different lesson topic icons pulled them together the best. She liked the monochromatic look that the conservative design was going for, because it would be less distracting, but she said she would go for a blue monochromatic scheme rather than green.

User 7

User 7 preferred the moderate design, because she felt that the conservative one was too boring, and the wild design had too much going on and was distracting. She thought that the moderate design was a good middle ground; she liked the softer

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colors, so that it had some diversity without being overwhelming. The wild design felt busy and overwhelming.

User 8

User 8 liked the moderate design best. She found it professional, but inviting and liked the soft palette. She likes the conservative and moderate design for fill-in-the-blank.

User 9

User 9 liked the wild design most. He said that it pops up the most out of all three because of the contrast colors and very-well picked icons. The conservative design was especially lacking in contrast due to the monochrome color palette. The user says he likes the login screen layout from the moderate design.

User 9

User 10 liked the layout of the moderate design but color/contrast of the wild design. He said that the moderate design seemed to have more white space between elements. It was important for him since such spacing makes it easier to read and navigate through the app. The spacing in the wild design seemed to be very limited thus the elements seemed to be too packed.

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Style Guide

Logo and Identity



Primary Identity Mark



Mobile App Icon



Colors

To keep our app looking clean, most of the app is white with bright colors (red, blue, and yellow) to draw attention to important items. There is a lot of information on our app so this prevents the user from being overwhelmed.



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Typography

Inter Font

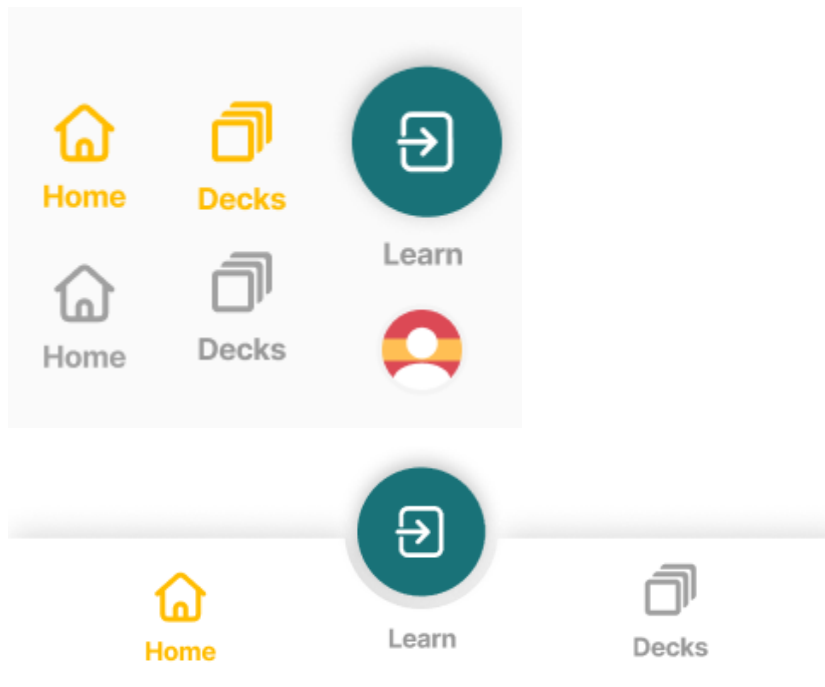
A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

a b c d e f g h i j k l m n o p q r s t u v w x y z

The inter font is a sans-serif font that works with the colors to keep the app looking minimal and clean.

Buttons

Navigation Buttons

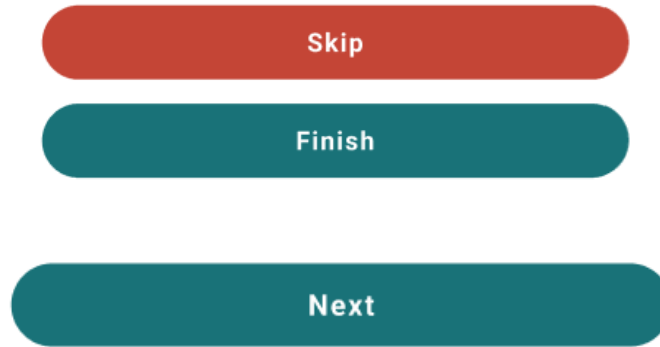


We kept it simple with only 3 menu buttons. The selected tab turns yellow and the learn button is always the most prominent to encourage the user to start a lesson. The profile button at the top is minimal but has color to draw the user's attention if they need to find the page.

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Prompt Buttons

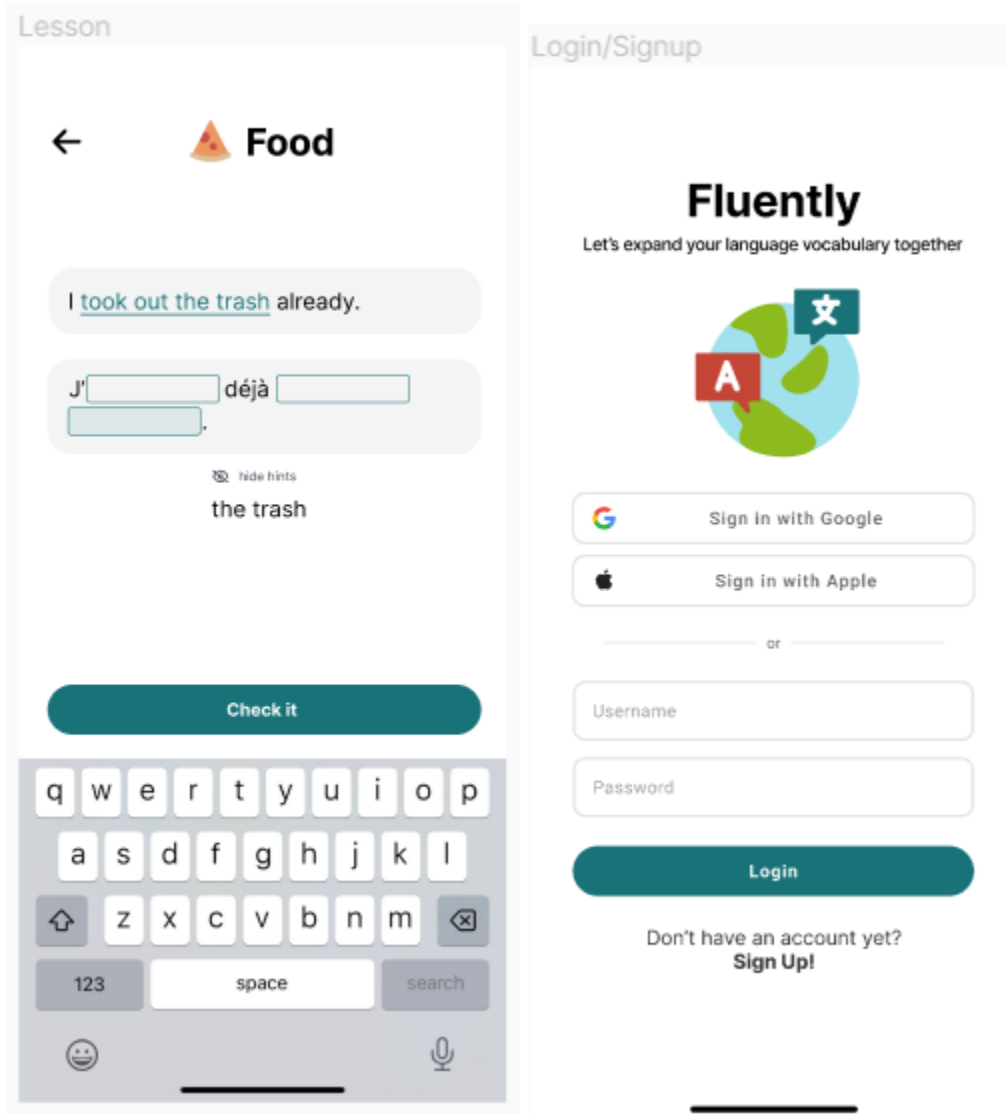


The buttons for the app that move the user through prompts are simple and colorful to draw attention when so the user knows where to go. Our default color is blue, but othe colors can be used to emphasize the meaning of the button when there are multiple.

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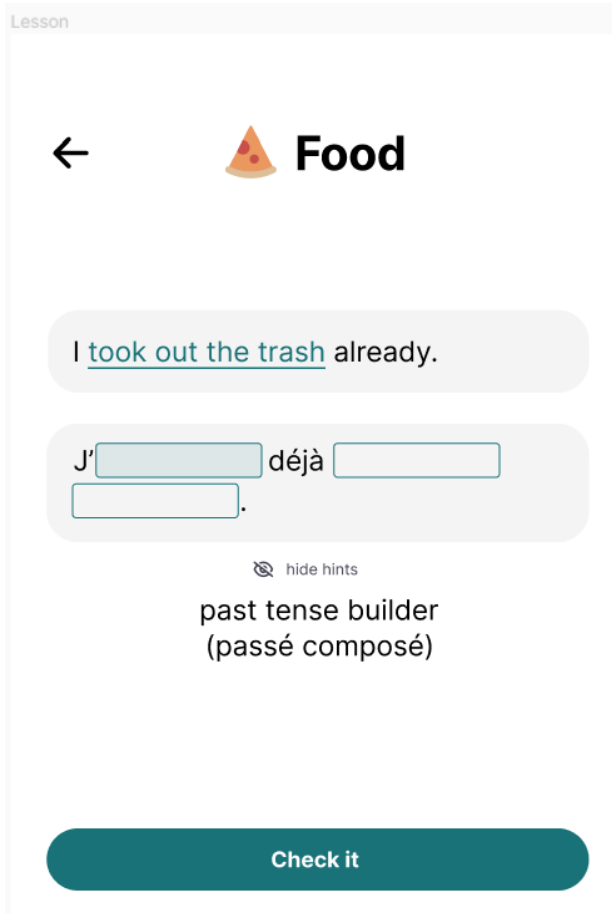
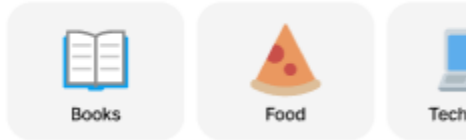
User Input



For lessons, user input is shown with an empty box (to prevent confusion when learning grammar) and placeholder text for other instances to direct the users.

Category Icons

Start a lesson



Category Icons are shown throughout the app because language learning can be enhanced with imagery. This also allows for users to more easily recognize categories without reading the text.

High Fidelity Prototype

<https://www.figma.com/proto/L5zi9rvmKuz1ZMLjz61Vv8/Lab-9%3A-High-Fidelity-Prototype?node-id=342-437&scaling=scale-down&page-id=0%3A1&starting-point-node-id=342%3A334&show-proto-sidebar=1>

Task Analysis - Fluently High-Fidelity Prototype

Think Aloud Protocol:

Assessed Product: Fluently Functional Prototype

Think Aloud Protocol: <https://www.youtube.com/watch?v=8KQILQrMQKM>

Hierarchical Task Analysis

User Task: Complete a Lesson

1. Open App (0:00-0:06)
 - 1.1. Click sign up (no existing account) (0:06)
 - 1.1.1. Fill out sign up forms (0:07-0:23)
 - 1.2. Click "Create Account" (0:24)
 - 1.3. Select target language
 - 1.3.1. Select "Spanish" (0:30)
 - 1.3.2. Select "Next" (0:35)
 - 1.4. Select interests (0:45)
 - 1.4.1. Select "Next" (0:52)
 - 1.5. Complete Biography (0:54-1:05)
 - 1.5.1. Select "finish" (1:06)
 - 1.6. Home page (1:07-1:23)
 - 1.6.1. Confusion - prototype displays that a lesson has been completed (1:15)
 - 1.7. Selects "Food" to start a lesson (1:24)
 - 1.7.1. Enters input for lesson (1:38-1:50)
 - 1.7.1.1. Hits "check it" (1:52)
 - 1.7.1.2. Hits "next" button (1:58)
 - 1.7.2. Enters input for lesson (2:03)
 - 1.7.2.1. Clicks "check it" (2:06)
 - 1.7.2.2. Displays errors message (2:12)

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- 1.7.2.2.1. User confused by “Wrong! Correct Solution” due to confusing text. Error (2:14)
- 1.7.2.3. Clicks “next” (2:16)
- 1.7.3. Enters answer (2:20)
 - 1.7.3.1. Clicks “check it” (2:27)
 - 1.7.3.2. Clicks “finish”
- 1.8. Back to home page

Post Experience Survey

1. Do you think users should receive positive feedback when the answers are correct?

- a. Yes, some notification is needed and a brighter, more prominent shade of green should be added. Something like “great job,” but don’t make it too cheesy.

2. After exploring the app further, what do you think needs to be added to make the decks more clear?

- a. Some explanation of decks, the concept is confusing
- b. Change “add a new topic” to “manage topics” (or something similar)
- c. Clarity on the dots
- d. Clearer way to explain the search

3. Was there anything notable about the home page?

- a. The goal seems high. Maybe make it customizable, make it smaller, and/or add a time frame to it
- b. I would like to be able to customize the home page

4. After exploring the profile page, was there anything that you would change about it?

- a. Don’t display biography on user’s profile (only in edit)
- b. Add a last name field in the edit profile screen

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- c. Put “add friends” at the top of the page so user’s don’t have to scroll to add friends
- d. Decide whether the app uses “friends” or “followers,” can’t choose both

5. What is one aspect of the entire app that needs to be changed to make this app more accessible?

- a. The app should be more consistent (icons, followers/friends, notifications in lessons)

Expert Evaluation

What worked and what didn’t? And why?

The general flow of the app worked well. Icons were clear and there weren’t too many distractions.

What Errors Happened and Why?

The user became confused at one point due to this being a prototype (user was supposed to complete a lesson and hesitated when it said a lesson had been completed).

The error happened when “correct answer” was shown next to “wrong” which confused the answer. Simply adding an extra break between the two lines can solve this issue.

Other errors that occurred when the user was exploring the app was a flow error due to the prototype going to the wrong page, and the edit profile page missing the last name input. There was also confusion on the concept of decks.

Recommendations for Future Improvements

Tell me what you learned from your end users?

The user was very helpful with suggestions. He emphasized that we needed to be more consistent in the way that we communicate information. We learned not to make assumptions based on experiences with other apps, such as interchanging friends and followers because of their assumed definitions.

What did they teach you about the usability of your design?

The general usability was successful, but it seems like there is more to be desired in a language app, especially to make it stand out. Goals were specifically mentioned. Custom goals or more reachable goals might make users come back more often.

What surprised you the most?

On the home page, the user took longer than expected to find where to start the lesson despite there being many ways to get to the page.

If you had time, how would you change your design to take into account their needs?

More reachable and custom goals that are within a time frame, put “add friends” at the top of the friends page, add a last name form or combine first/last names to “name” in edit profile, explain decks to users when they first start using the app, explain dots in deck, change “add topics” to “manage topics,” “correct” notification for each correct answer