

Discover

Define

Develop

Deliver

- PROBLEM STATEMENT

People who grew up disconnected from a culture in which a minority language is spoken might have a hard time reconnecting with their culture and need better access to language resources.

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- HYPOTHESIS

Using a holistic approach to language learning might improve the learning experience. This involves prioritizing culture, fostering connections between learners and natives, and democratizing endangered language resources.

- HOW WILL I KNOW?

When key indicators show that users are making steady progress in their target languages while feeling fulfilled with the content offered by the app. This will rely on the collection of both quantitative and qualitative data.

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### CONVENTIONAL LEARNERS

- Short survey
- Mainly qualitative data

### HERITAGE LEARNERS

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CONVENTIONAL LEARNERS

HERITAGE LEARNERS

- **One-on-one interviews**
- **Mainly qualitative data**

Surveyees mainly between  
18 and 22 years old

The most common struggle is  
finding resources in target  
language

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Learning an endangered  
language for 0-2 years, on  
average

Secondly, they can't find  
other learners or native  
speakers

Mainly learning due to  
cultural reasons or  
fascination for the language

Their main goal is to connect  
with other people

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Interviewees were between  
20-25 years old

They have a hard time  
getting started due to  
difficult grammar

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Feel disconnected from their  
culture of origin but place  
great value on it

They want to reconnect with  
their culture and with others  
from that culture

Most of them are already  
learning another language

They rely heavily on digital  
resources but have a hard  
time finding good ones

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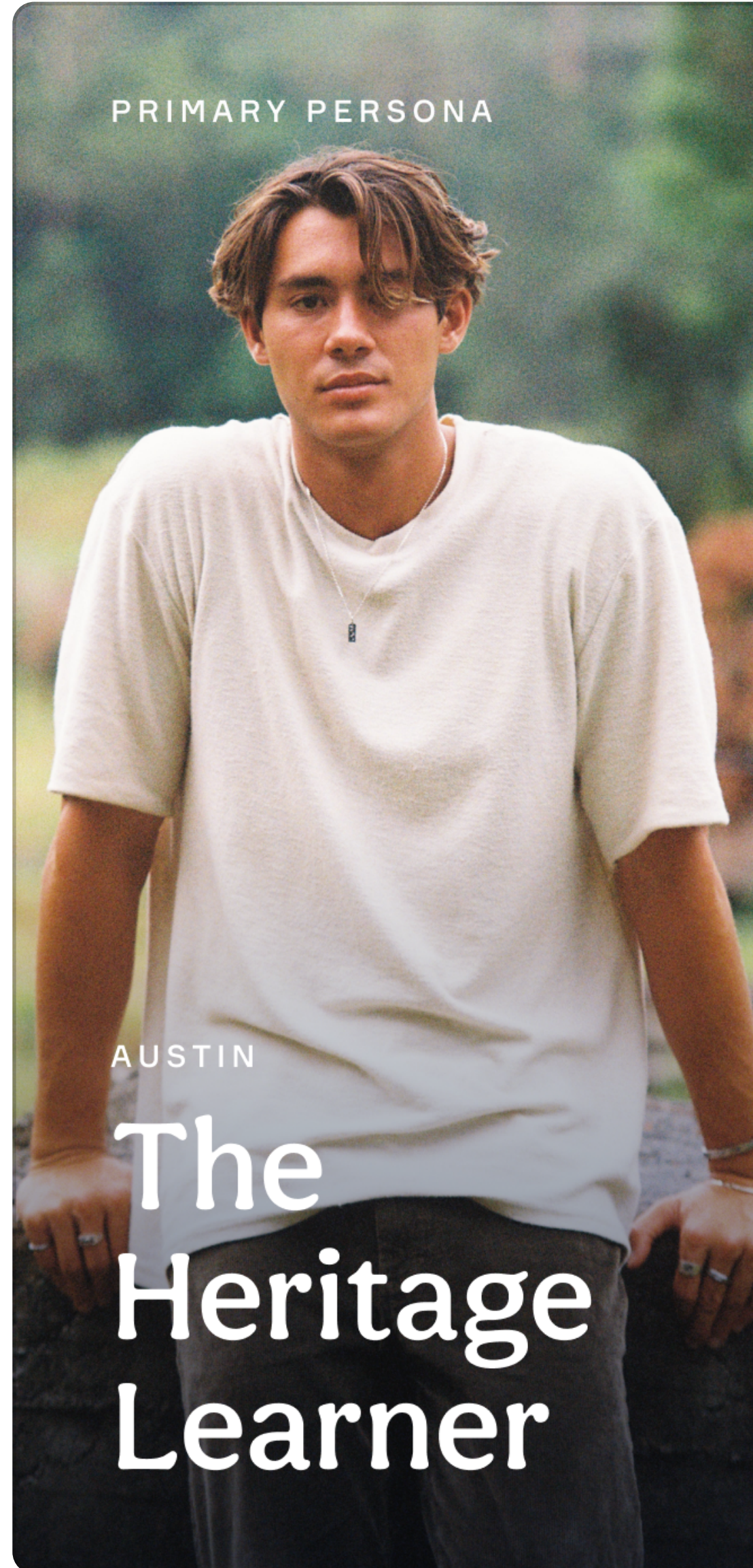
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Austin was born in California to an American father and a mother of Navajo descent who never taught him the Navajo language. Recently, Austin has been trying to reconnect with his Navajo side by learning the language. One day, he would like to meet his extended family on his mother's side and communicate with them in their native language.

“I’ve taken Spanish in the past, but learning Navajo is a completely different story. Try finding a Netflix movie or reading Harry Potter in Navajo!”

**“THE EVERYMAN”**  
 19 YEARS OLD  
 PASADENA, CA  
 COLLEGE STUDENT  
 PART-TIME JOB

**APPS & SOFTWARE**

**ESFJ**  
 EXTROVERTED  
 SENTIMENTAL  
 PASSIONATE  
 DEDICATED

**BEHAVIORS**

- Studied languages, but never learned one to fluency
- Finds resources online
- Practices by speaking with other native speakers
- Dedicates a certain amount of time to language practice each day
- Learns best through spaced repetition (SRS)

**GOALS**

- Learning about Navajo culture, customs, and history
- Reconnecting with his heritage
- Reaching fluency to communicate with relatives in Navajo

**FRUSTRATIONS**

- A lack of good resources
- Not living in an area where Navajo is spoken
- Finding language hard to grasp due to difficulty
- A lack of other Navajo learners
- Learning in an unstructured environment
- No opportunity to practice with natives



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SECONDARY PERSONA

BEA

# The Curious Learner

Bea has spent the last few years learning languages as a hobby. Her newfound interest in Basque music led her to pick up the language, despite having no Basque ancestry. She's aware of the language's endangered status and is considering the possibility of contributing to its revitalization once she becomes fluent in it, either through teaching or creating resources.

"I'd love to help preserve the Basque language, but I need to be mindful about my approach. I don't want appear as having a 'hero complex'."

**"THE SAGE"**

23 YEARS OLD  
 BARCELONA, SPAIN  
 COLLEGE GRADUATE  
 FULL-TIME JOB

**APPS & SOFTWARE**



**INFP**

INTROVERTED  
 CURIOUS  
 EAGER  
 OPEN-MINDED

**BEHAVIORS**

- Familiarity with learning several languages
- Highly interested in the culture of the languages she learns
- Uses both grammar books and language learning apps, but prefers digital resources
- Prioritizes reading and writing over listening or speaking
- Consumes lots of media in target languages

**GOALS**

- Explore a new language family
- Expand understanding of Basque culture, music, and literature
- Work in a language revitalization project to preserve Basque
- Spread awareness about the Basque language and its culture

**FRUSTRATIONS**

- Is usually on the go and finds it difficult to look up resources in Basque on her phone
- Doesn't know where to start looking for resources
- No direct connection to the language
- Hesitant about appearing as self-important for trying to save another culture's language



Overcoming roadblocks  
unique to learning an  
endangered language



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How might we make learning an  
endangered language **accessible** both to  
people with **ties** to a specific culture and to  
those learning it for **other reasons**?

Creating an immersive  
learning experience for  
heritage learners



Rooting learning an endangered  
language in cultural awareness





SOFIA WANTS TO:

## Find and compile Basque resources

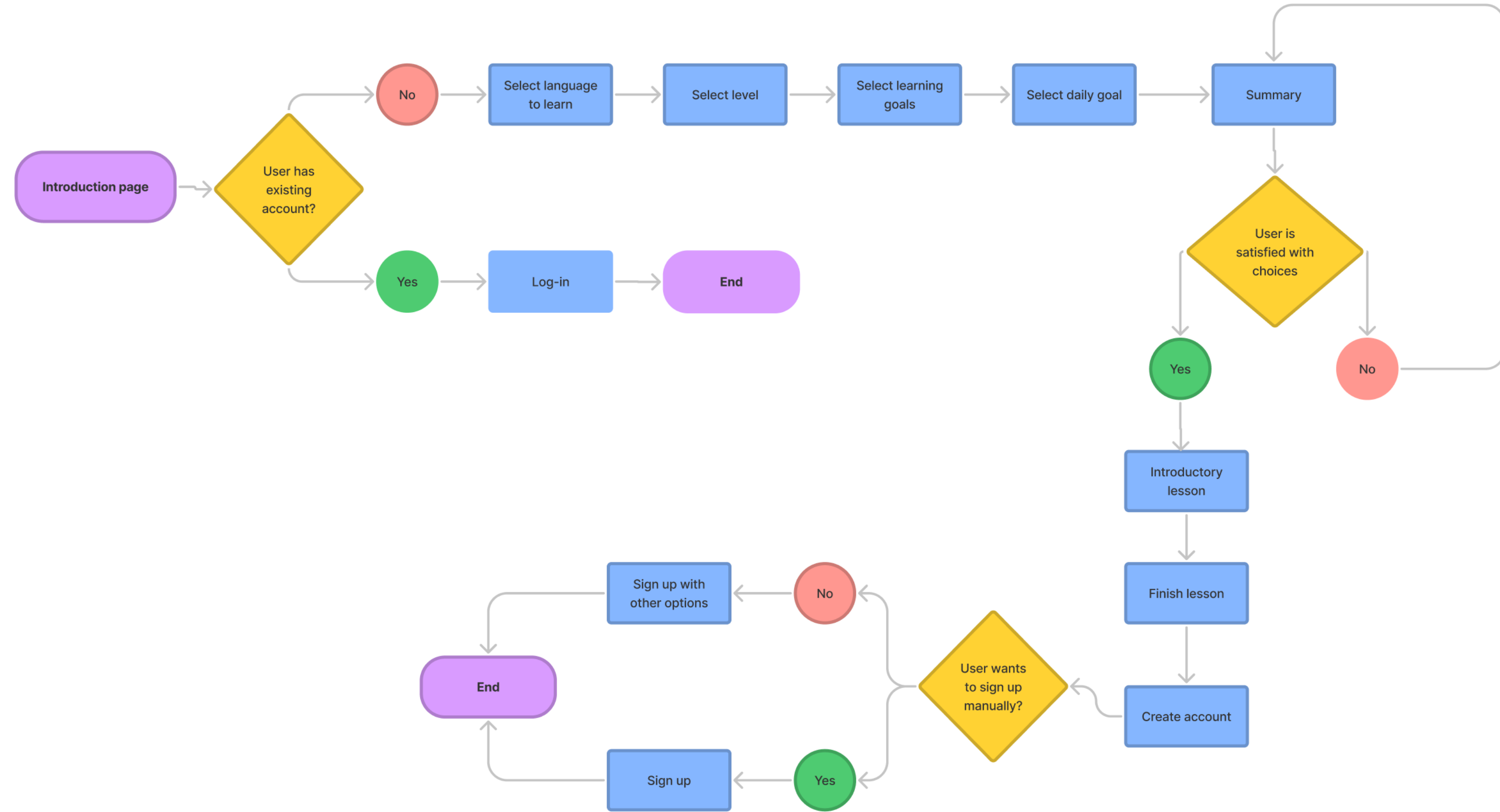
### EXPECTATIONS

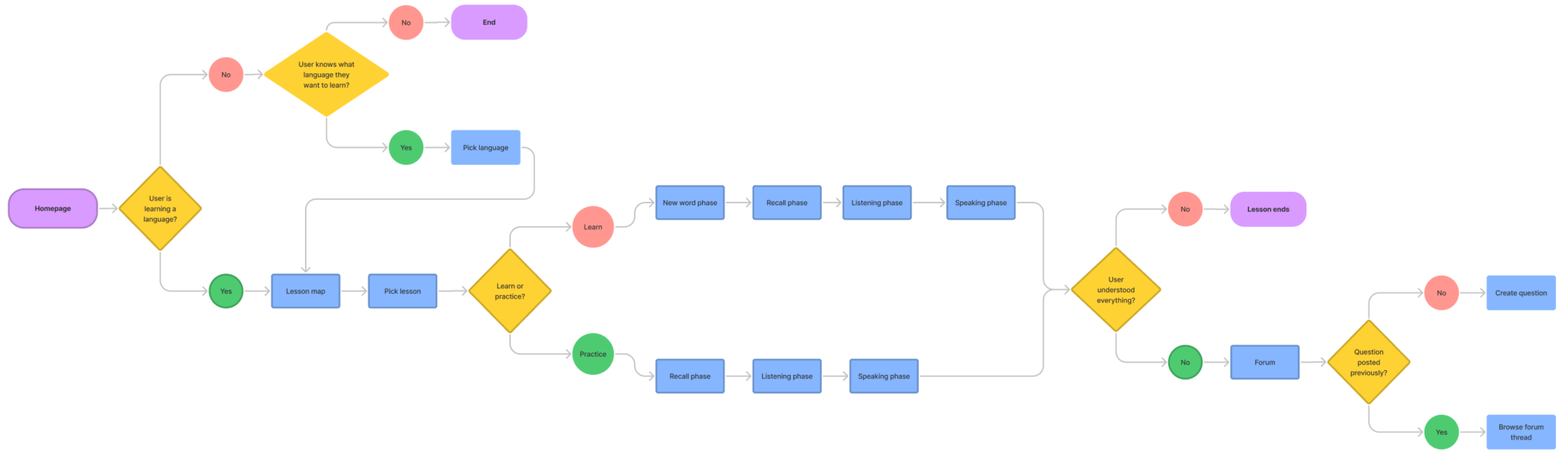
- Find good beginner resources in Basque that allow her to practice both her listening and reading skills
- Store all these resources in one place for later usage
- Share these resources with others

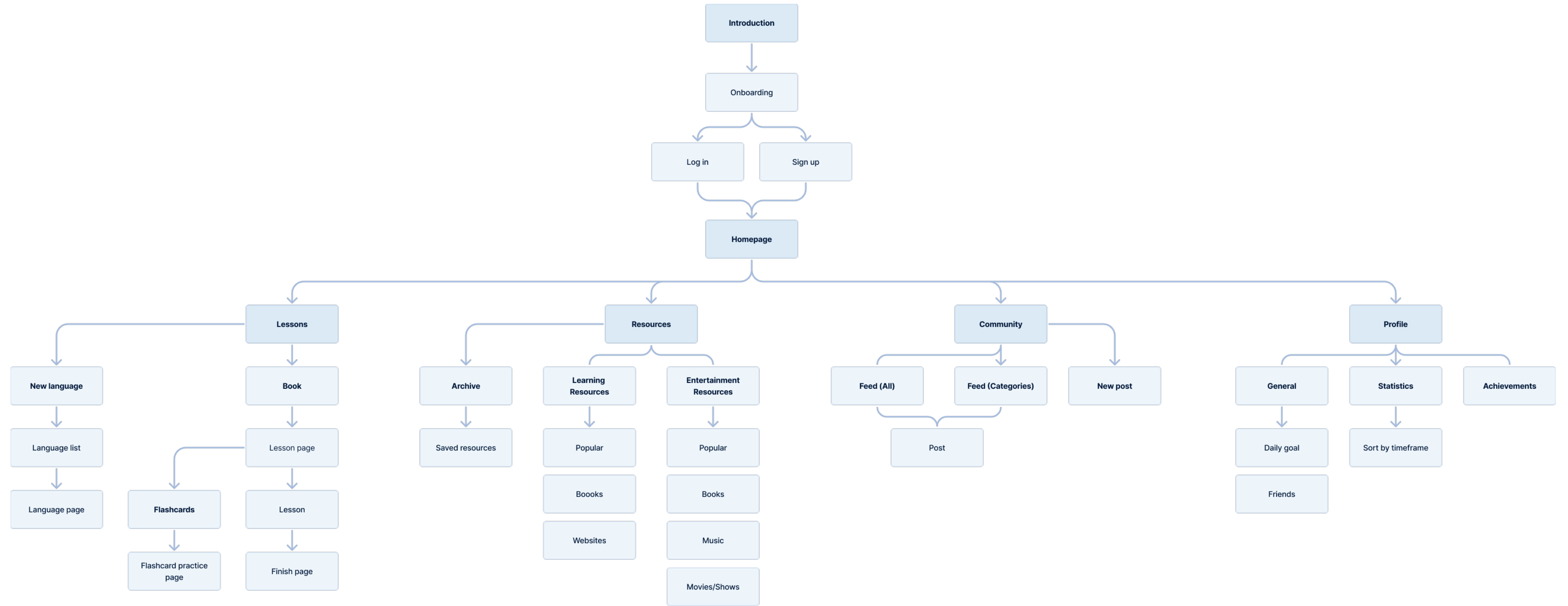
STAGES	Need/desire	Browsing	Sharing	Usage
MOOD				
STRENGTHS	<ul style="list-style-type: none"> <li>• Some apps or websites offer access to external resources (e.g. Duolingo forums allow users to suggest resources")</li> </ul>	<ul style="list-style-type: none"> <li>• Youtube has a large amount of listening and watching content</li> <li>• Reddit and other forums are good places to contribute minority language resources</li> </ul>	<ul style="list-style-type: none"> <li>• Bookmarking or adding resource links to notes apps makes them easy to store</li> </ul>	<ul style="list-style-type: none"> <li>• Resources are scattered around different apps and locations and are thus easy to misplace or forget to use</li> </ul>
PAIN POINTS	<ul style="list-style-type: none"> <li>• Access to these resources is limited and infrequent in the apps themselves</li> <li>• User finds it hard to know where to start browsing</li> </ul>	<ul style="list-style-type: none"> <li>• Hard to know which pages and forums offer specific types of resources (e.g. Reddit and other forums have a mishmash of everything)</li> </ul>	<ul style="list-style-type: none"> <li>• Can't save resources in language learning apps themselves.</li> <li>• Can't share with others</li> </ul>	<ul style="list-style-type: none"> <li>• Resources are scattered around different apps and locations and are thus easy to misplace or forget to use</li> </ul>
OPPORTUNITIES	<ul style="list-style-type: none"> <li>• Offering access to curated resources in every language offered by the app</li> </ul>	<ul style="list-style-type: none"> <li>• Allowing users to contribute their own resources</li> <li>• Classifying resources by category and making searching and filtering easy</li> </ul>	<ul style="list-style-type: none"> <li>• Allowing users to easily display the resources and share them with each other</li> </ul>	<ul style="list-style-type: none"> <li>• Making resources easily available within the app itself</li> <li>• Dedicating a specific page within the app to resource collection</li> </ul>

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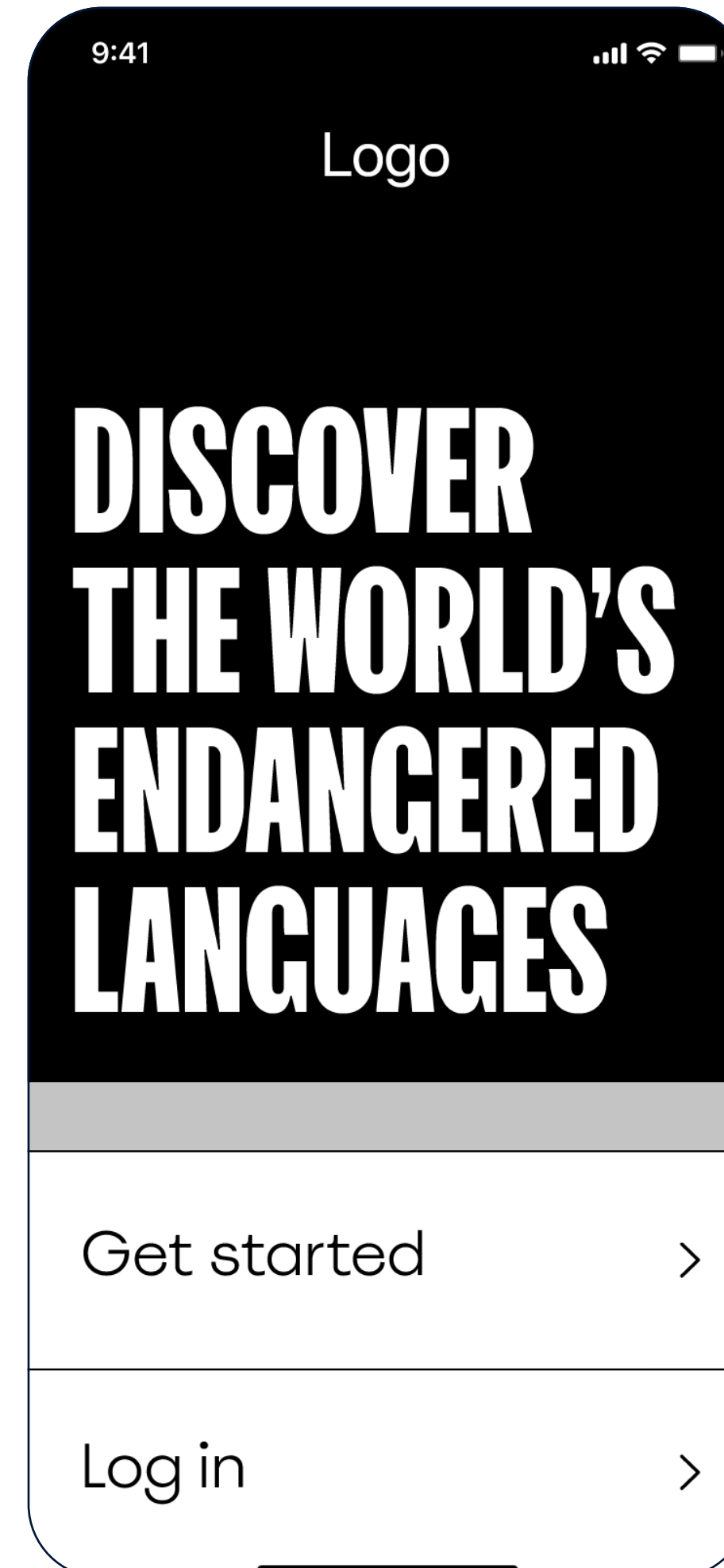




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Low-fidelity

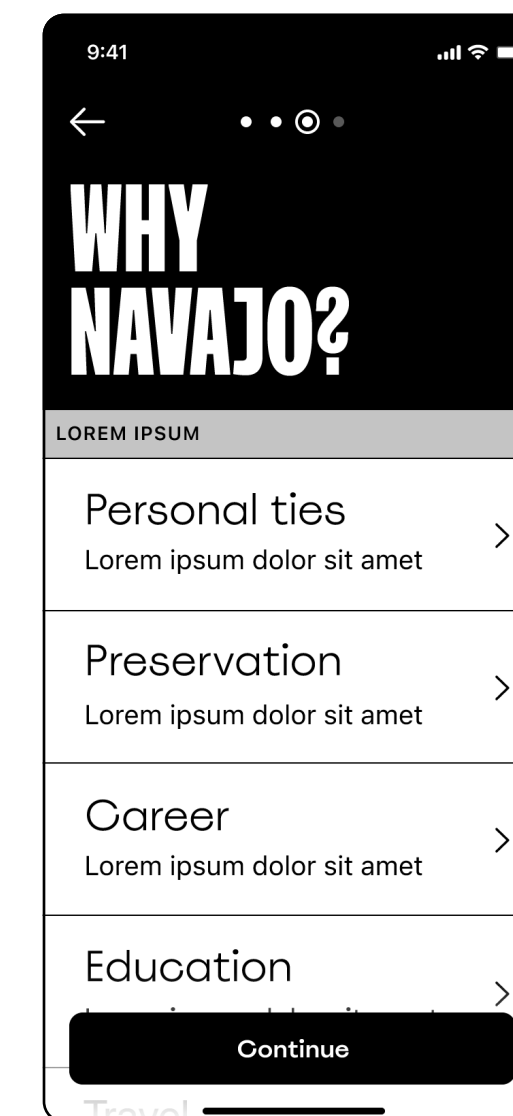
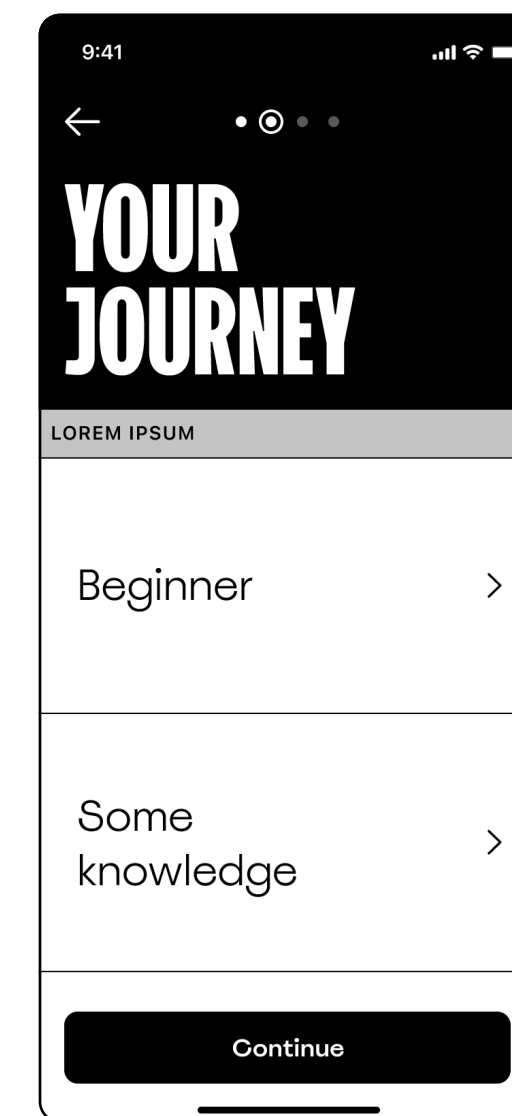
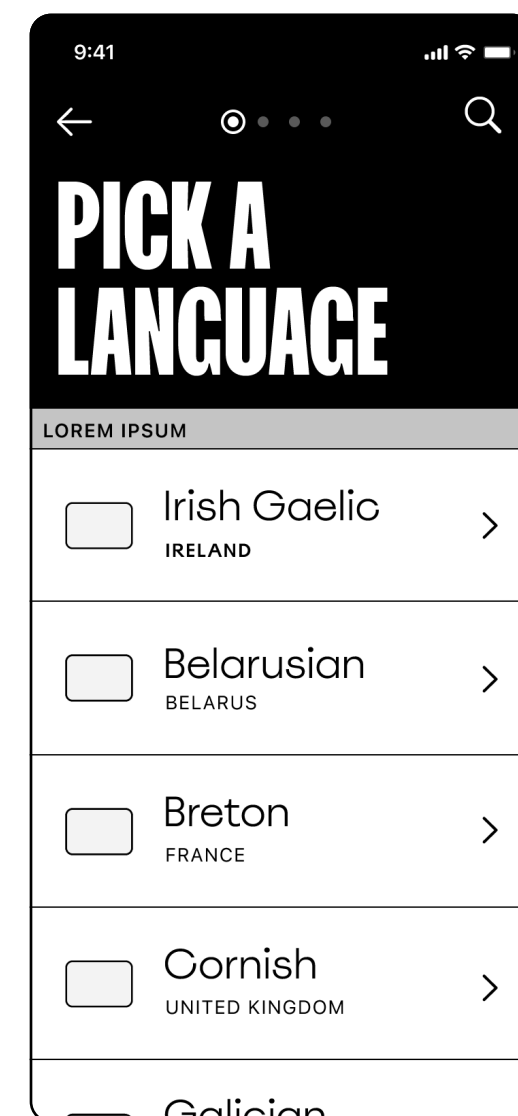
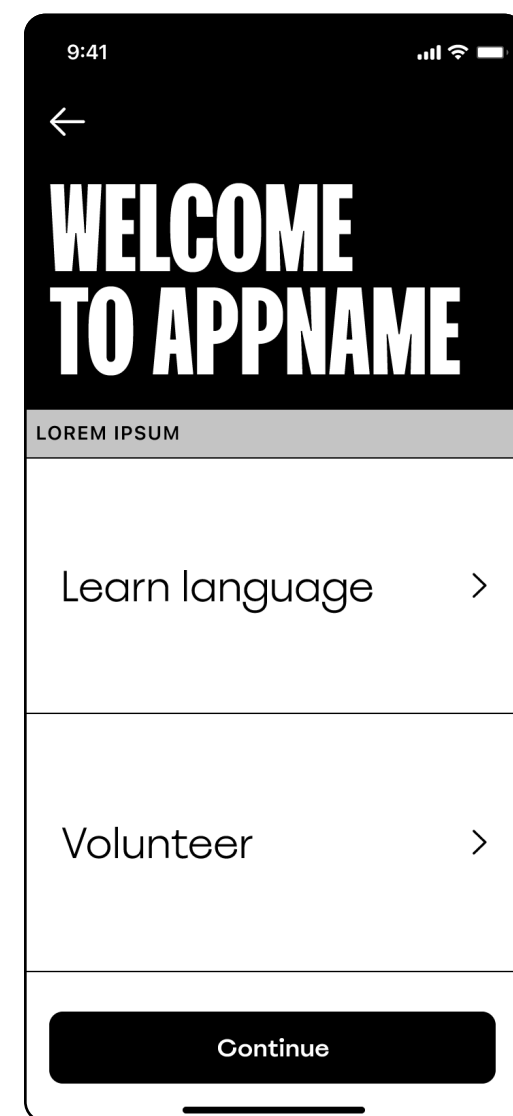
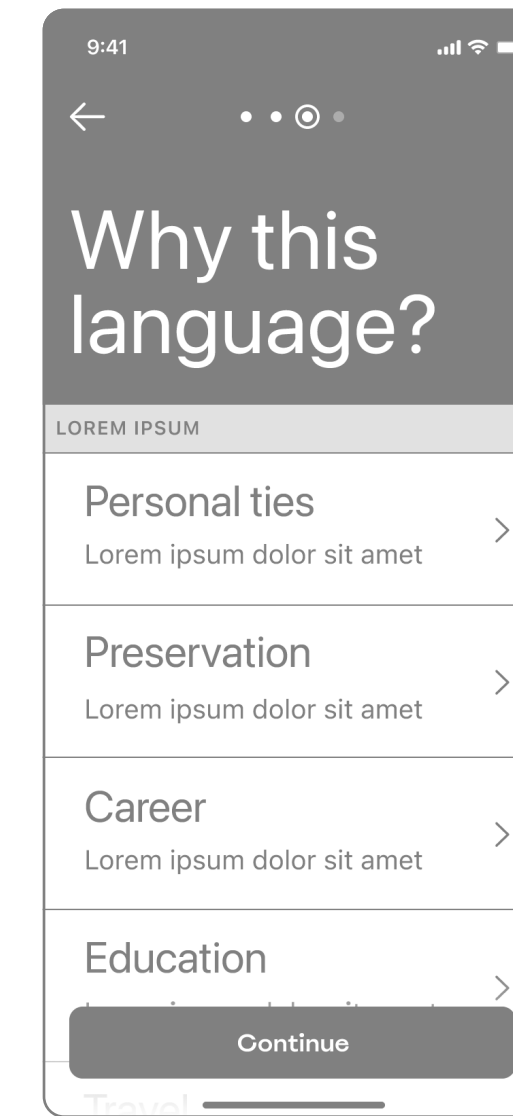
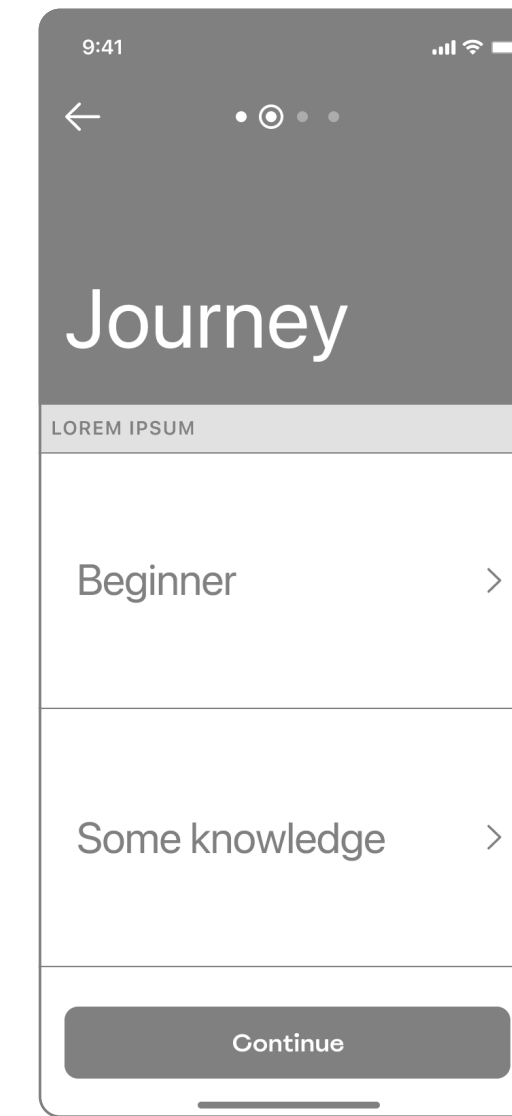
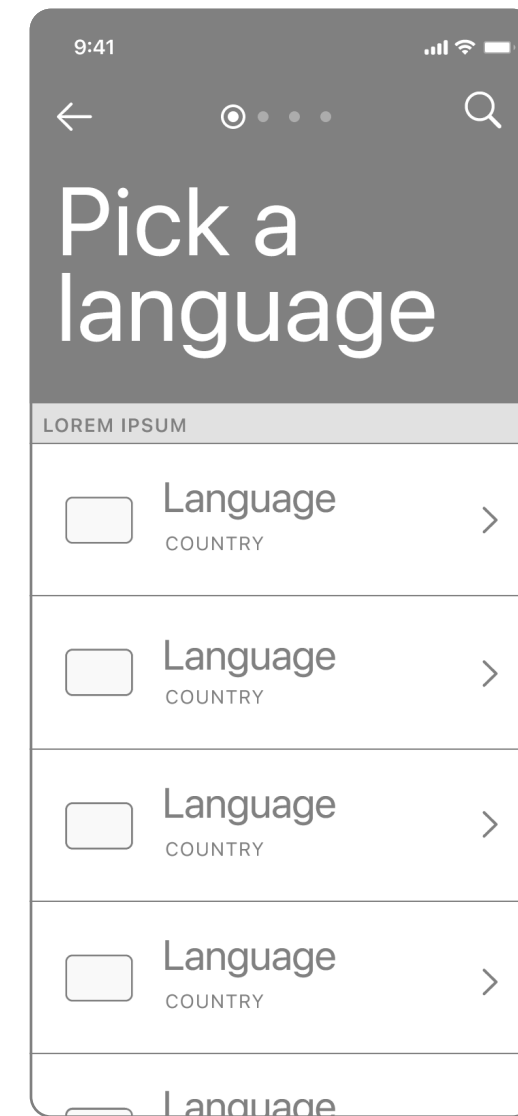
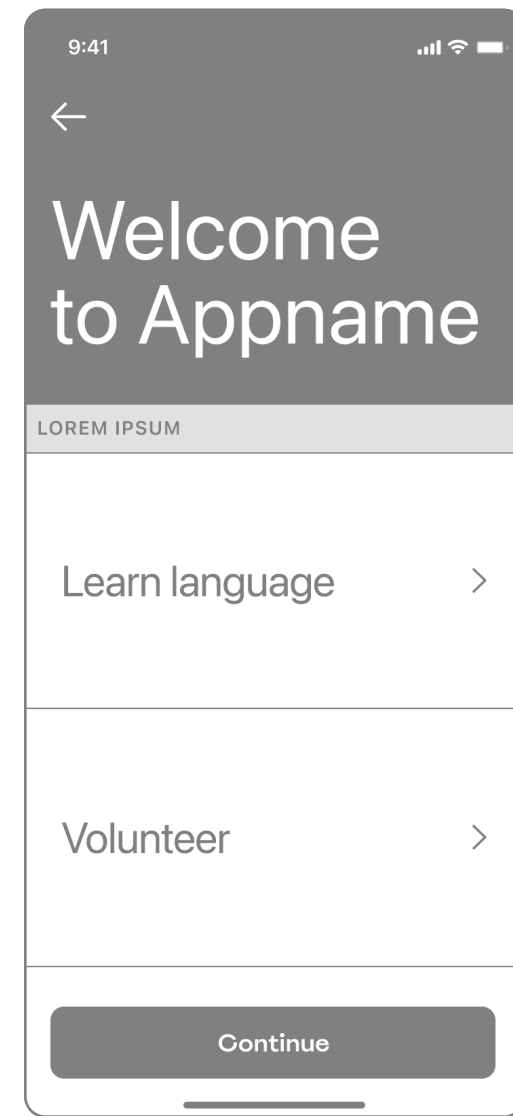
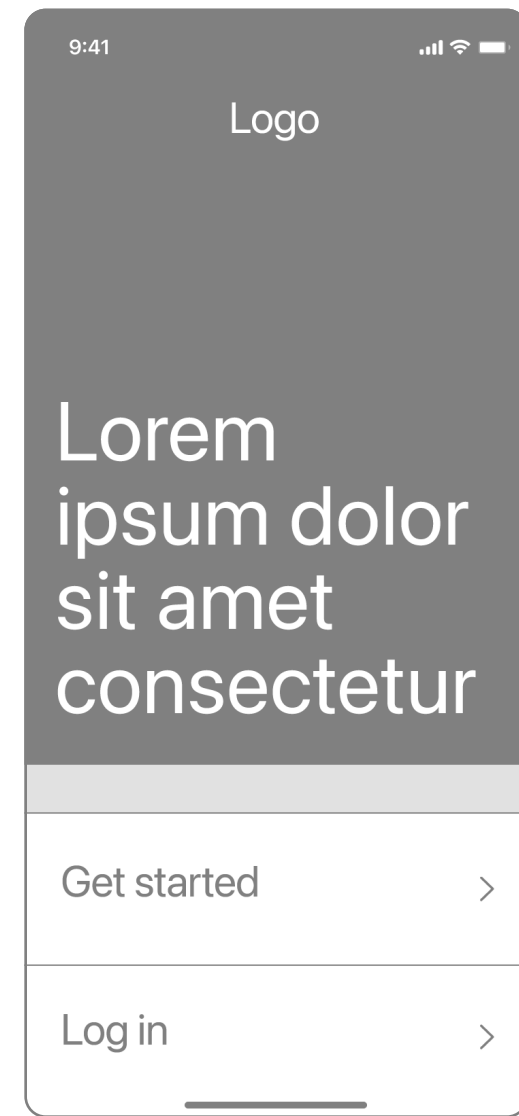


Mid-fidelity



High fidelity

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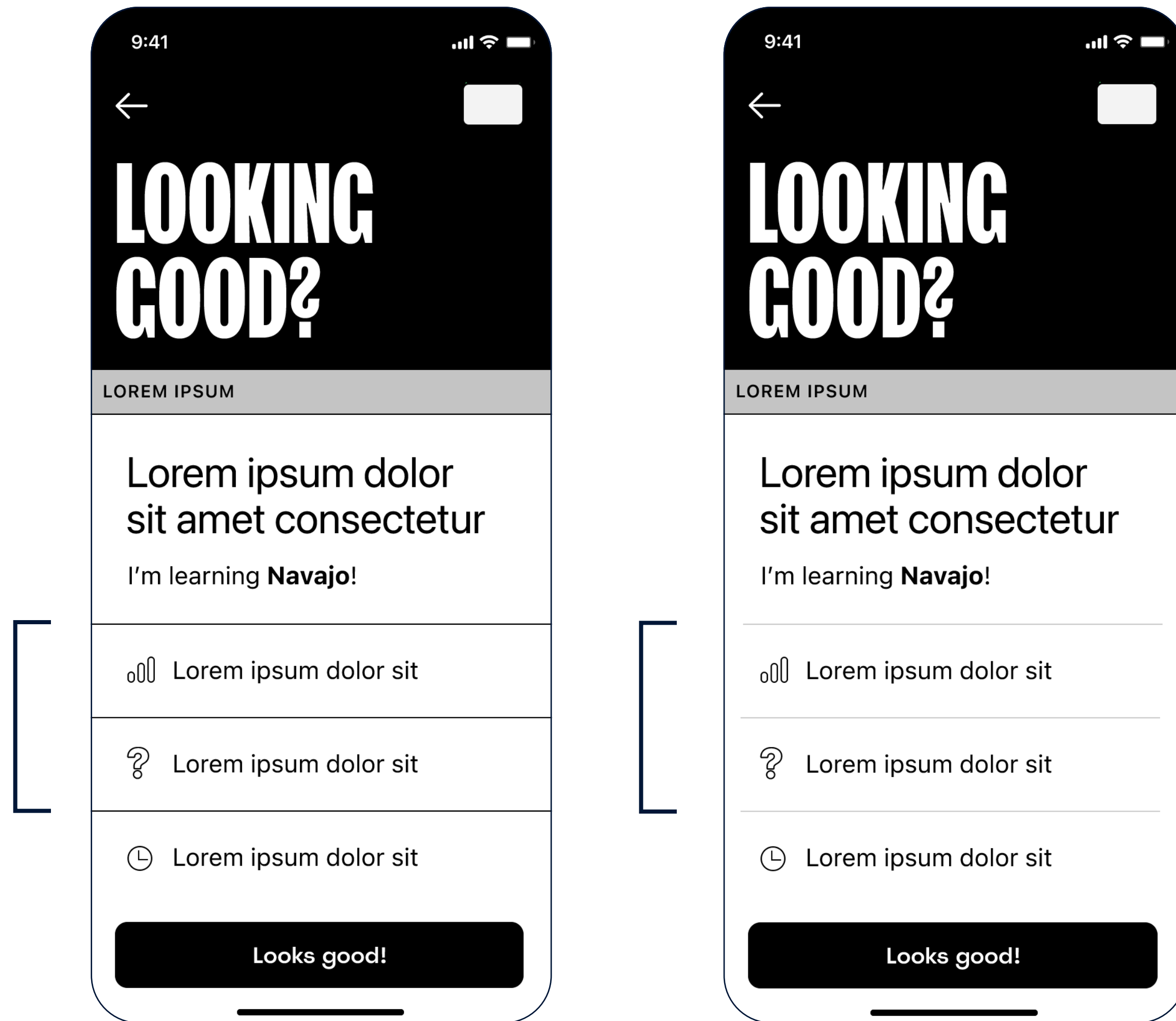
Develop

Deliver

- USABILITY TEST - ROUND I
  - Conducted through Maze on low/mid-fidelity prototype
  - Tested general usability and basic user interface choices throughout flow
  - Participants recruited in person/forums
  - Metrics: Success rate, speed, feedback



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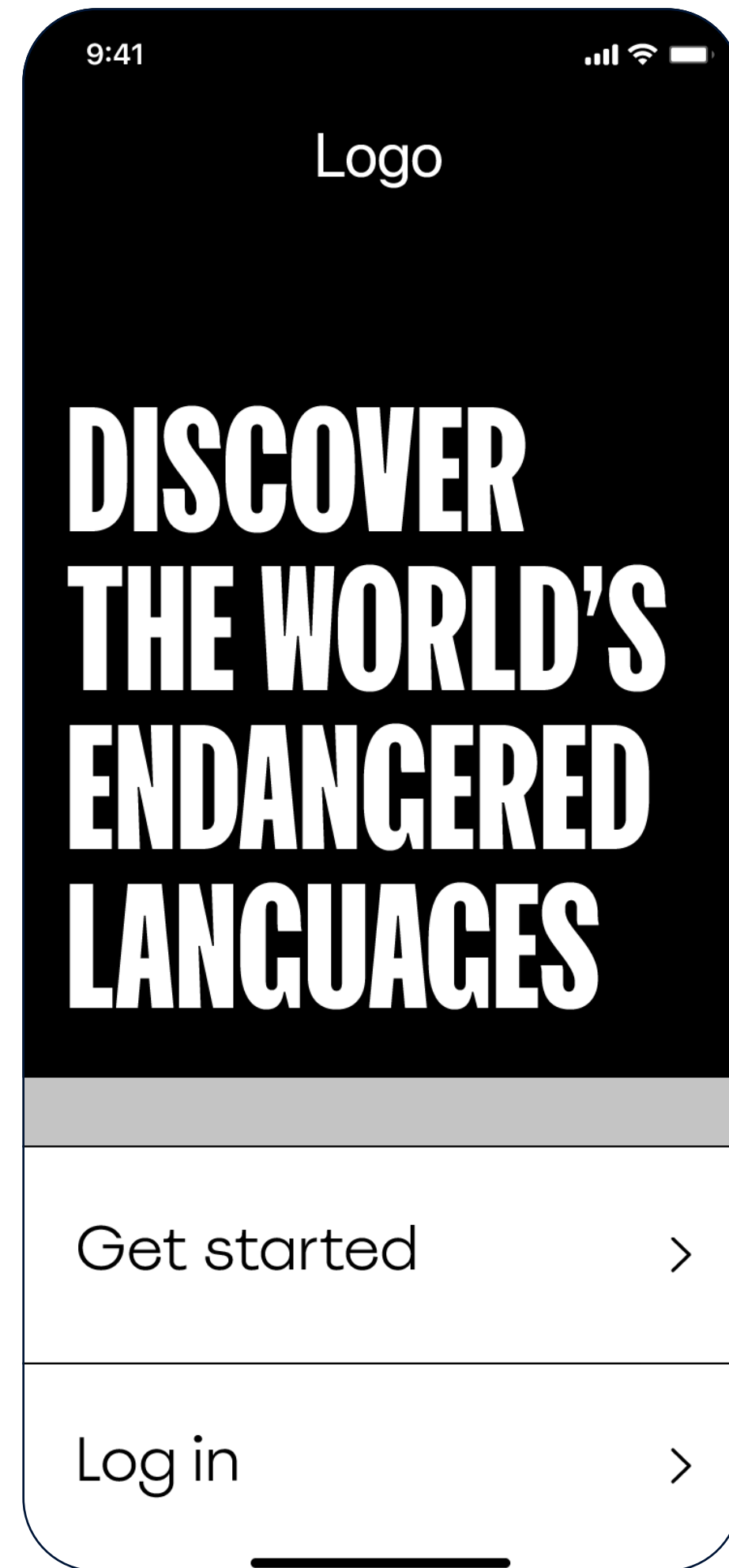
Make it clear to the user when an area is clickable and when it's not

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The wording for this section wasn't ideal,  
as it caused confusion among users

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Pure black areas and condensed font  
appeared daunting to a few users

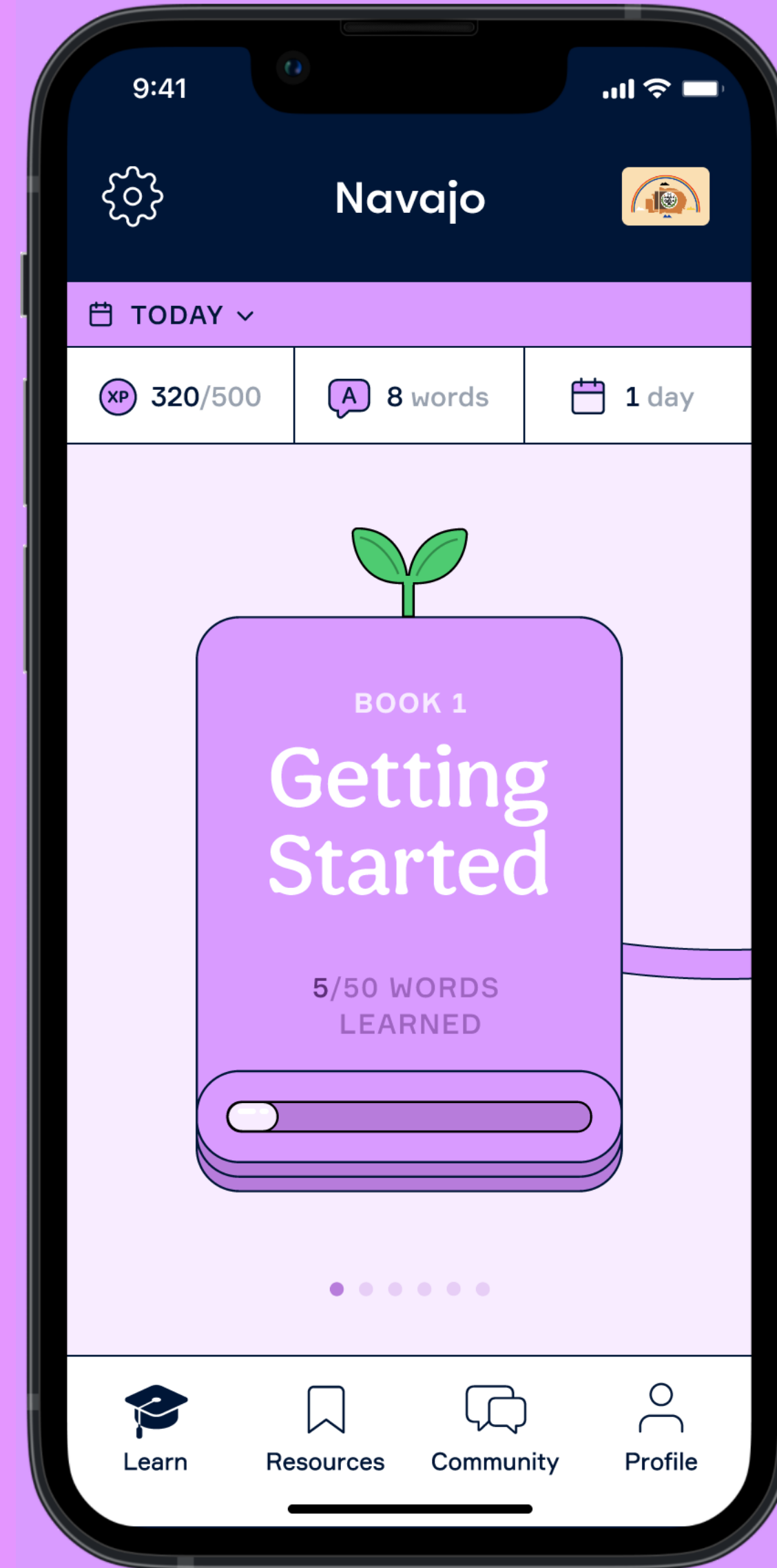
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- USABILITY TEST - ROUND II
  - Conducted in person for in-depth qualitative data
  - Tested specific features, as well as general accessibility
  - Participants recruited in person
  - Metrics: Success rate, speed, feedback

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- RESULTS OF LAST ROUND
  - Made 5 low to mid-impact changes to ensure consistency across the UI.
  - Redesigned the transition from the end of the onboarding to the user's first lesson to make the process shorter and more straightforward.

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Onboarding  
Lessons  
Resources  
Community  
Profile

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## NEXT STEPS

- Design volunteer experience
- Testing effectiveness of content
- Monetization and additional features
- Accessibility: Partnering with libraries
- Post-handoff iteration





(Comic Sans? No thanks)