LinguaLore Project Proposal

Design for Educational Applications

CSCI 4080U

Dr. Michael Miljanovic

February 27th, 2026

Ellycea Burke, Heather Meatherall, Kevin Chua, Ryan Warrener

Introduction

Literature, films, video games, and television shows that take places in worlds outside our own often create fictional languages as part of the setting. These help to give more depth to world building. Fans of these media often have an interest in learning these languages, as a way to engage with the stories on a deeper level. However, there is rarely a way for these fans to learn and practice these languages if they don't have like minded peers or know where to find the resources to help. Our app seeks to provide users with a way to learn these constructed languages, with activities that help them practice their reading, writing and speaking skills in various languages found in media.

Background

Arguably the most popular & well known language learning app, *"Duolingo"*, has started to break into the niche category of fictional languages with *"Klingon"* in 2017, & *"High Valyrian"* in 2018 [1]. However, other than an update to *"High Valyrian"* in 2022 to coincide with the release of the new *"Game of Thrones"* entry, *"House of Dragons"*, there have been no major efforts or improvements into this niche category of language learning.

One question that comes up with discussing learning fictional languages is what purpose does it serve? Other than being fun, one benefit is that it helps you develop what is known as metalinguistic awareness, which is "the ability to consciously think

about different properties of a language such as pronunciation and grammar"[2]. The creators of these fictional languages consciously design them, developing words and sentence structure entirely from scratch [3]. Developing this ability can help when learning other languages.

Learning Outcomes

"LinguaLore" has 4 main learning outcomes. The first is that by the end of their selected language course, users will be able to understand conversations in the language without the use of in movie/tv show subtitles. We want users to be able to hear and listen to the language being spoken, and understand what is being said without having to look at the subtitles on screen. In the real world, there are no subtitles when you are hearing someone else speak to or around you. We want the users to be able to understand as if they were totally immersed in that fictional environment.

The second learning outcome is that by the end of their selected language course, users will be able to formulate sentences and have a conversation with another language speaker to their desired fluency level. One of the critiques of *"Duolingo"* is that it is not effective at teaching proper grammar rules that one would be able to apply in a real conversation. The app is more focussed on teaching vocabulary with no context behind its words or sentences [5]. Research shows that focussing on grammar when teaching a language improves the overall effectiveness of teaching that language [4]. Our app aims to include grammar in our lessons so users feel confident in their abilities

to form their own sentences and have meaningful conversations in their desired fantasy language.

Our third learning outcome is that by the end of each lesson/module, users will be able to identify words and translate them to English. *"LinguaLore"* is designed so that at the end of each lesson, users will have been introduced to a new set of words or phrases. If they are not able to understand what those words or phrases mean in its English context, then our app has not done its job.

Our final learning goal is that by the end of each activity, users will be able to match their selected language words/phrases to its correct English meaning.

App Design

Figma Link:

(https://www.figma.com/design/sMB3Q2GqGPFtzDWEXy4cOf/Group-2---Storyboard?node-id=55-143&t=OynbqfD55IVG3G0o-1)

From the beginning, this application is made with the core belief that it needs to be as intuitive, non-invasive & fun. Starting from the beginning of launching the app for the first time as a new user, you are given three options, to sign into an existing account, to create a new account or to continue as a guest. The first two options are the standard among any software, website or application, but giving the user the ability to still use the content of the application without needing an account, was an important feature we want to have. Giving the user more freedom and allowing them to focus
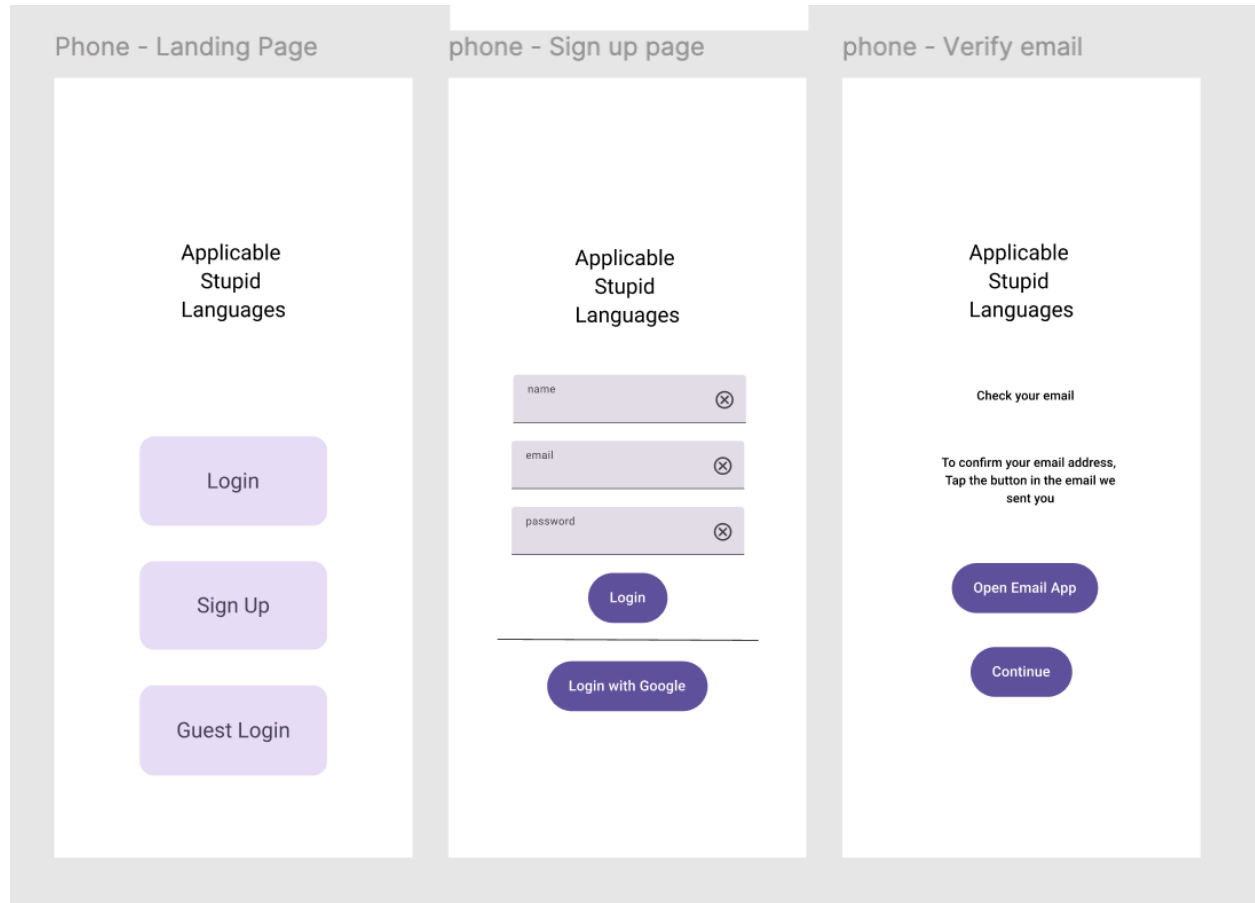
more on what matters, that being actually interacting with the language learning activities.

The main learning objects our app will feature are translation activities, audio mimicry and roleplay simulations. Where most language learning apps focus on translation activities, our app will have a balance of the three. Each activity, whether that be through matching to english translation, or communicating with a fantasy character through simulations or audio mimicry, will require the user to provide an answer, and they must answer all the questions in a lesson correctly to be able to move onto the next lesson.

Images

Images One, Two & Three:

Initial launch page, leading to sign up page, then a page waiting verification of email
(user can progress for now without needing an verified email address, information will
be saved locally until then)

Images Four, Five, Six & Seven:

User profile setup page (profile picture selection & custom username), selection of language page, selection of language "difficulty" page, miscellaneous account/app settings.

Basic Profile

Please enter your username:

...

<---   -------->

Select Language

Please select a language to start!

(More can be selected later!)

"Na'vi" (Avatar)

"Klingon" (Star Trek)

"Sindarin" (LOTR)

<---

Select Language Goals

Please select your learning goal!

(Can be adjusted at any point!)

Native
(~15 questions/lesson)

Intermediate
(~10 questions/lesson)

Beginner
(~5 questions/lesson)

<---

Finalize Account

Please finalize your account!

Share Data?

Allow Notifications?

Allow Microphone?

Allow Camera?

Ask not to Track?

<---   -------->

Image Eight & Nine:

User returning to the application (already signed in), User selecting to start their next

lesson

Welcome back

Ready to learn

Welcome Back!

Language: Na'vi

Ready to start learning?
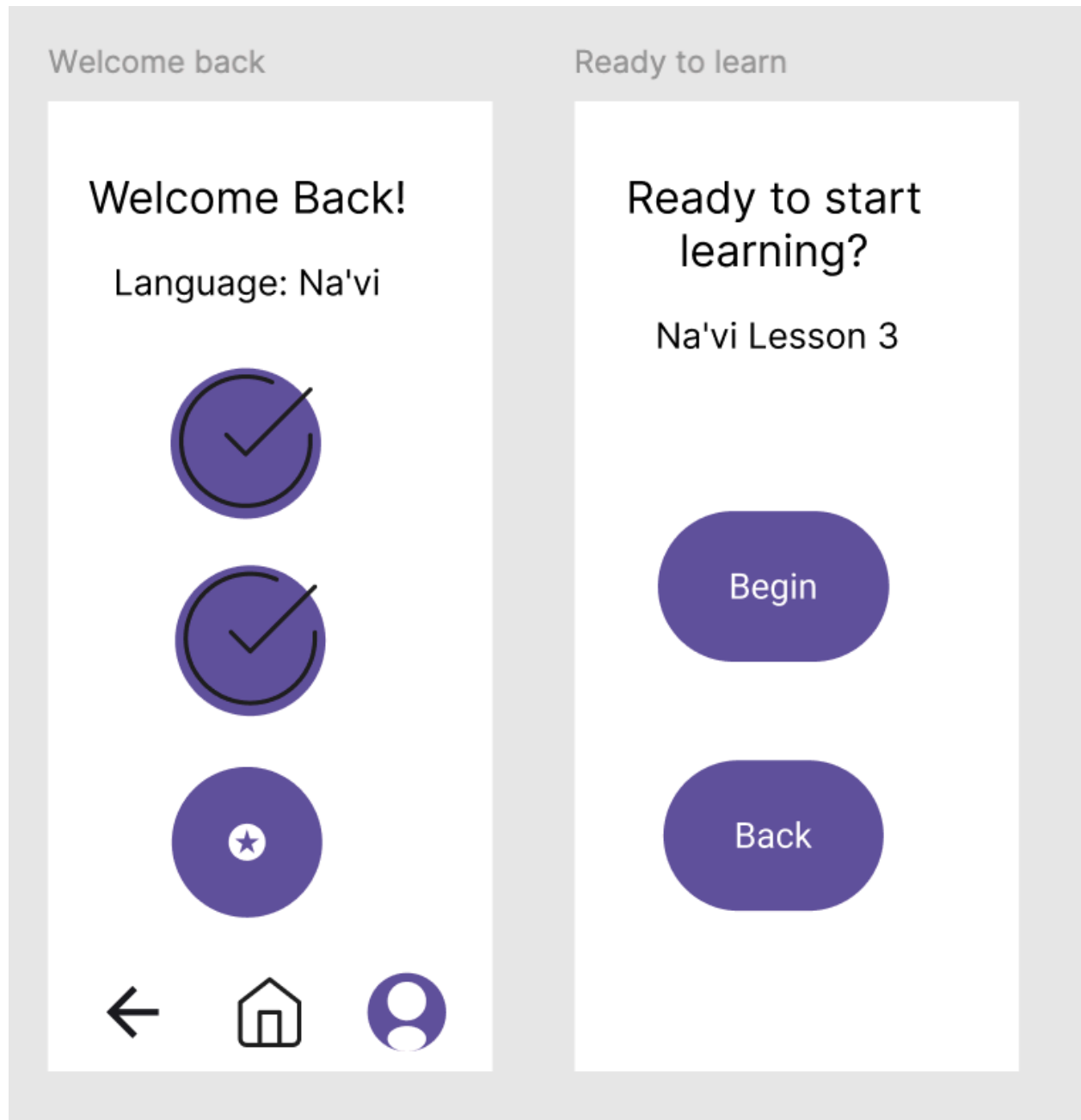
Na'vi Lesson 3

Begin

Back

Image Ten, Eleven:

User taking their lesson in their selected language, User selecting they want to leave the lesson prior to completion
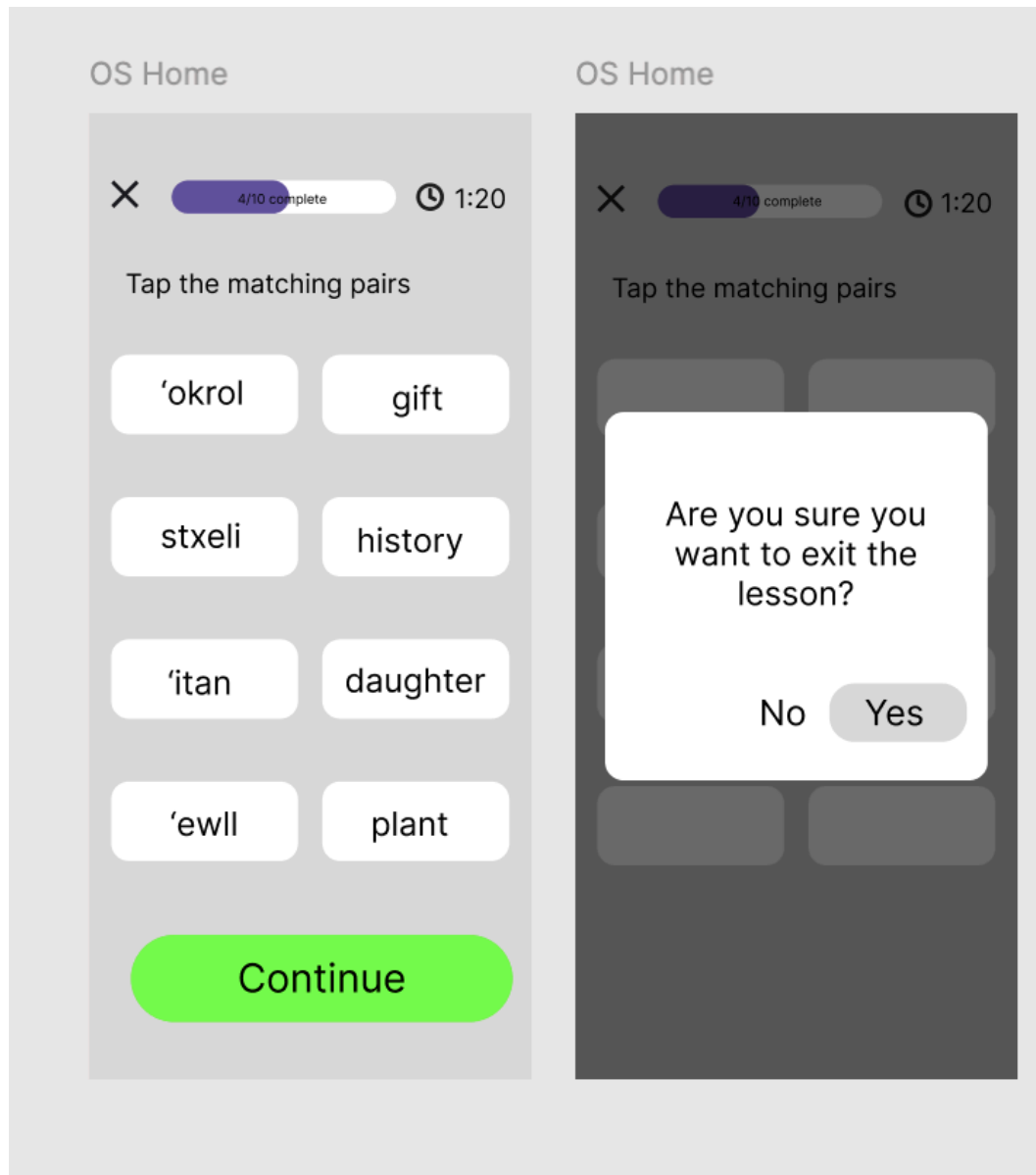
Image Twelve, Thirteen:

User selecting their answer and then hitting submit, User getting the correct answer and receiving positive feedback
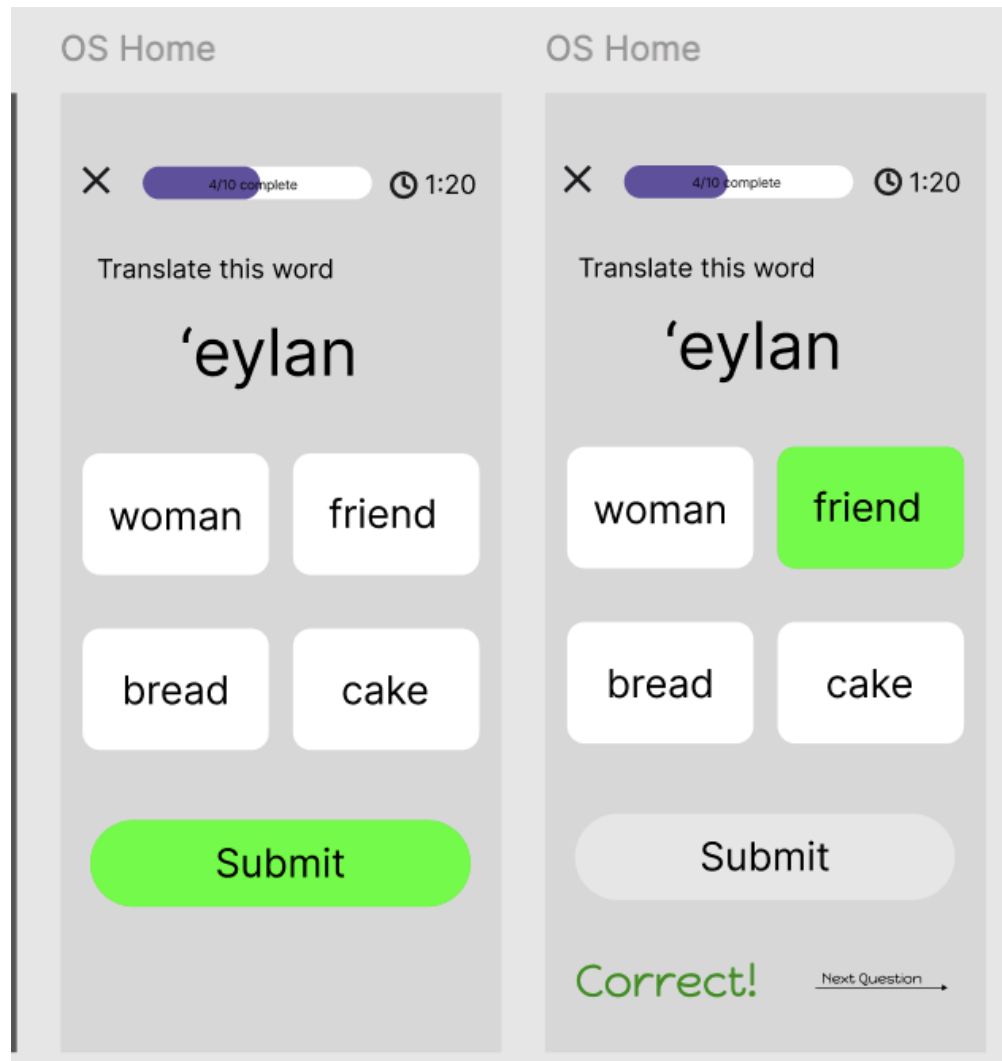
Image Fourteen:

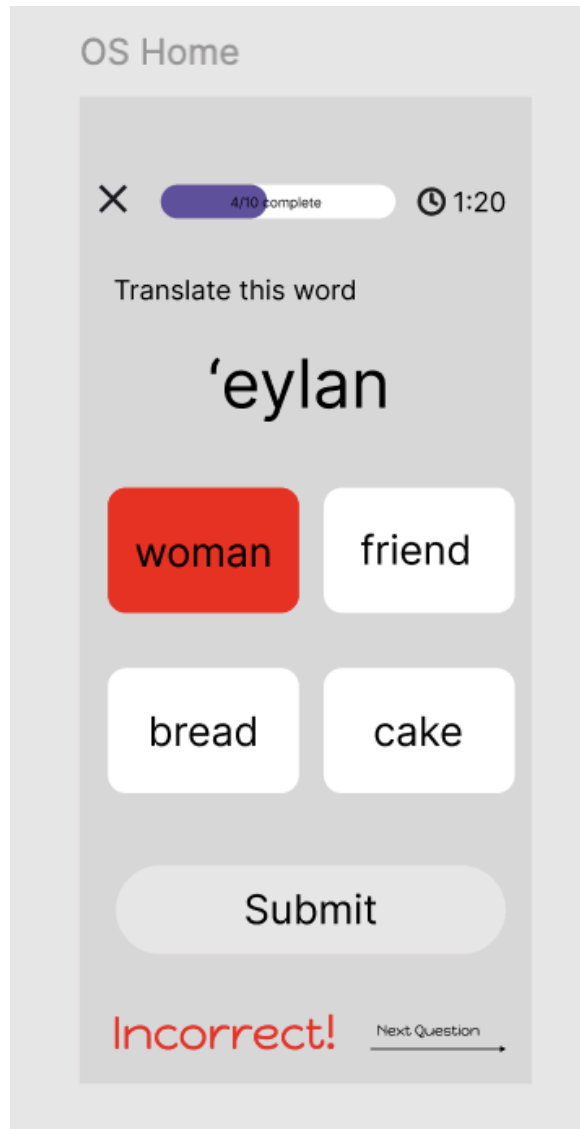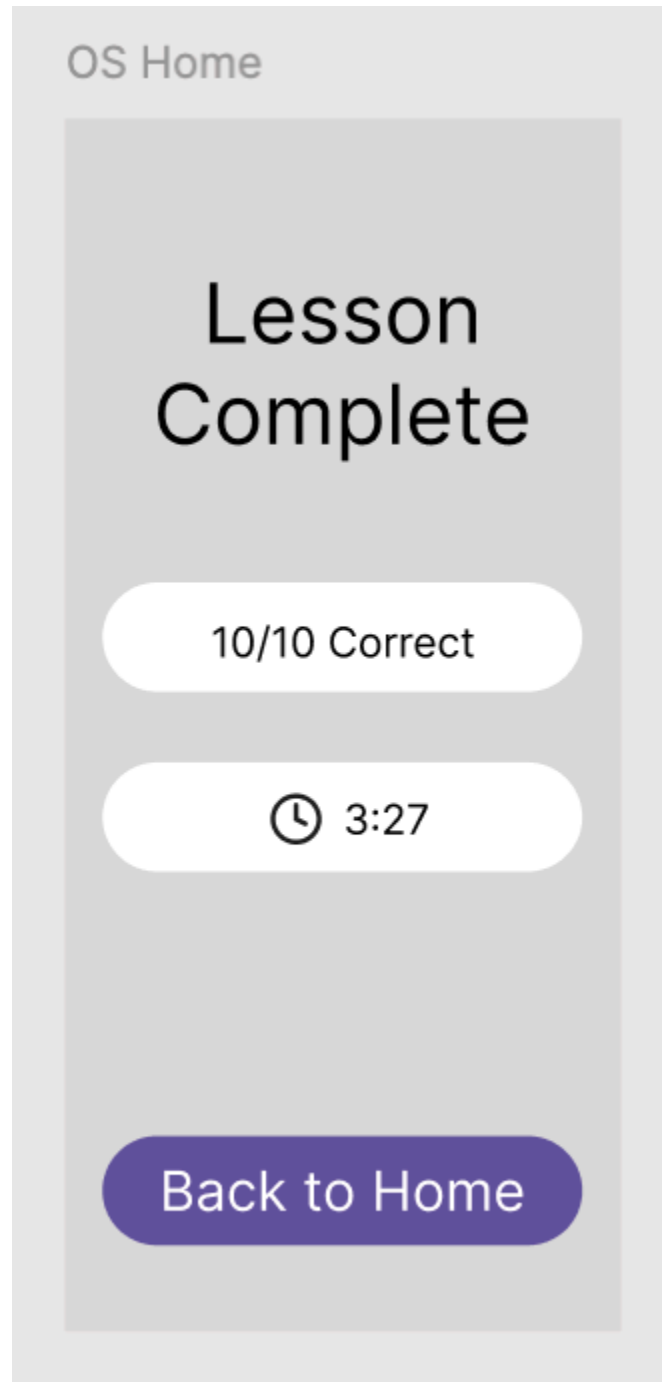User had selected the wrong answer & hit submit button, leading to feedback

OS Home

✕　4/10 complete　🕐 1:20

Translate this word

'eylan

woman | friend

bread | cake

Submit

Incorrect!　Next Question →

Image Fifteen:

User has completed a lesson

References

[1] Noah Higgins-Dunn. 2019. If you are a 'Game of Thrones' fan, this app will teach you how to speak in High Valyrian. Retrieved from https://www.cnbc.com/2019/04/14/game-of-thrones-fans-this-app-teaches-you-to-speak-in-high-valyrian.html

[2] Ramsey L. Cardwell. 2021.Why Learn A Made-up Language?. Retrieved from https://blog.duolingo.com/why-learn-a-made-up-language/

[3] Cody Mello-Klien. 2025. What is a conlag? A linguist explains how languages in 'Game of Thrones', 'The Lord of the Rings', and 'Star Trek' Are Created. Retrieved from https://cos.northeastern.edu/what-is-a-conlang-a-linguist-explains-how-languages-in-game-of-thrones-the-lord-of-the-rings-and-star-trek-are-created/

[4] Khanh Cong Ly. 2024. The Importance of Grammar in Language Teaching and Learning. *Workshop on Innovation in Language Teaching and Learning*, 186-190. Retrieved from https://www.researchgate.net/publication/382341801_The_Importance_of_Grammar_in_Language_Teaching_and_Learning

[5] Mille Larson. Why I Don't Recommend Duolingo (Review) - It Doesn't Work. Retrieved from https://autolingual.com/duolingo-review/