

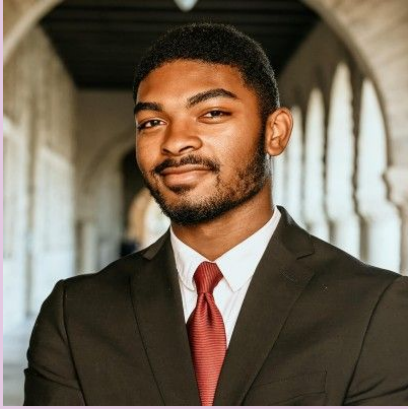


Mora

Assignment 8: Hi-Fi Prototype

Bryant, Candy, Lulu, Tommy
11.22.2024

Our Team



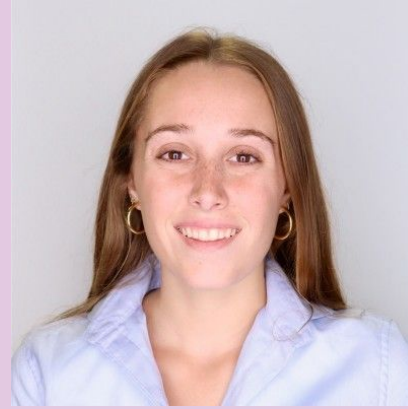
Bryant

Senior
Computer Science



Candy

Senior
Urban Studies




Lulu

Junior
Computer Science



Tommy

Junior
Computer Science



mora

more amusement. more acquisition. mora.

Problem

Traditional language learning methods use a one-size-fits-all curriculum that do not teach learners in **fun** and **immersive** contexts.

Solution

Mora is a streaming companion that **interrupts** your watching with **live language lessons**, **curates personalized review material** for your favorite shows, and **connects you to interest-based communities** of language learners to bond and/or **compete live with**.

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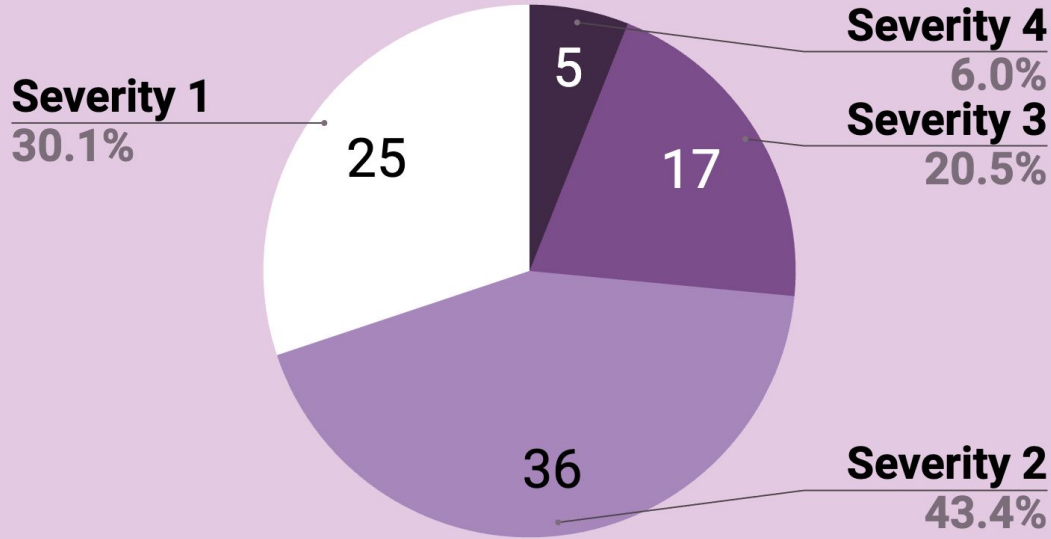
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01

Heuristic Evaluation Results

Violations Breakdown



**Total # of
Violations:
83**

Most Common Violations

01

19%

H4: Consistency &
Standards
(16 violations)

02

13%

H8: Aesthetic &
Minimalist Design
(11 violations)

03

11%

H1: Visibility of
System Status
(9 violations)

04

11%

H3: User Control &
Freedom
(9 violations)

Violations by Task

Simple

23

Pair mechanism,
watch session
settings

Moderate

19

Lesson & summary
page content, filter
mechanism

Complex

22

Visibility of
settings, lack of
context &
explanation

Misc.

19

Features not
yet
implemented

Qualitative Summary

- Confusing use of action color
- Lack of explanation & documentation throughout the app
- Accessibility issues
- Insufficient safeguards against mistakes
- Unimplemented features

02

Design Revisions

22
severity 3 & 4
violations



16
Revisions
(+ 2 partial revisions)

Severity 3 & 4 Revisions Breakdown

16
Revisions
(+ 2 partial
revisions)

Watch Party (5)

Lesson (3)

'Add channels' page (2)

Solo Watch Session Mechanism (2)

Filter (1.5)

- Partial Revision: Organization of 'your terms' page

Acknowledgement of Language Levels (1.5)

- Partial Revision: Added metric about skill level and progress

Profile page (1)

Contrast (1)

What did we not change?

4

No Revisions

App expectation (4)

- How pausing works (2)
- Social expectation (2)

Rationale: Does not align with our app expectation & lack of explanation in README

61
severity 1-2
violations



47
revisions

Severity 1 & 2 Breakdown

47
revisions

Consistency in alignment, spacing

Button placements

Hierarchy in colors, use of action color

Less crowded layouts

- Nested information in information icons

Fleshed out logic for watch party function

- Screens that clarify expectation and transition from previous screens

Documentation throughout app

What did we not change?

11

No Revisions

Time constraint

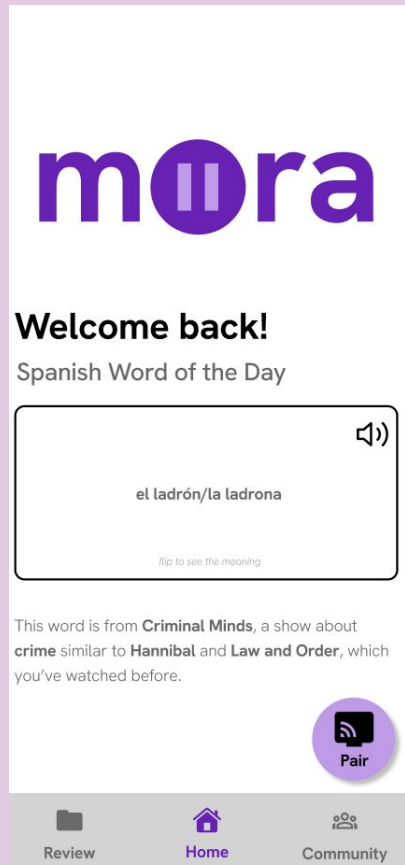
- Immediate feedback for more complex question types

Does not align with our expectation of the app

- More emphasis on the social aspect than we intend
- Excessive emergency exits and customization that could interrupt with task flow

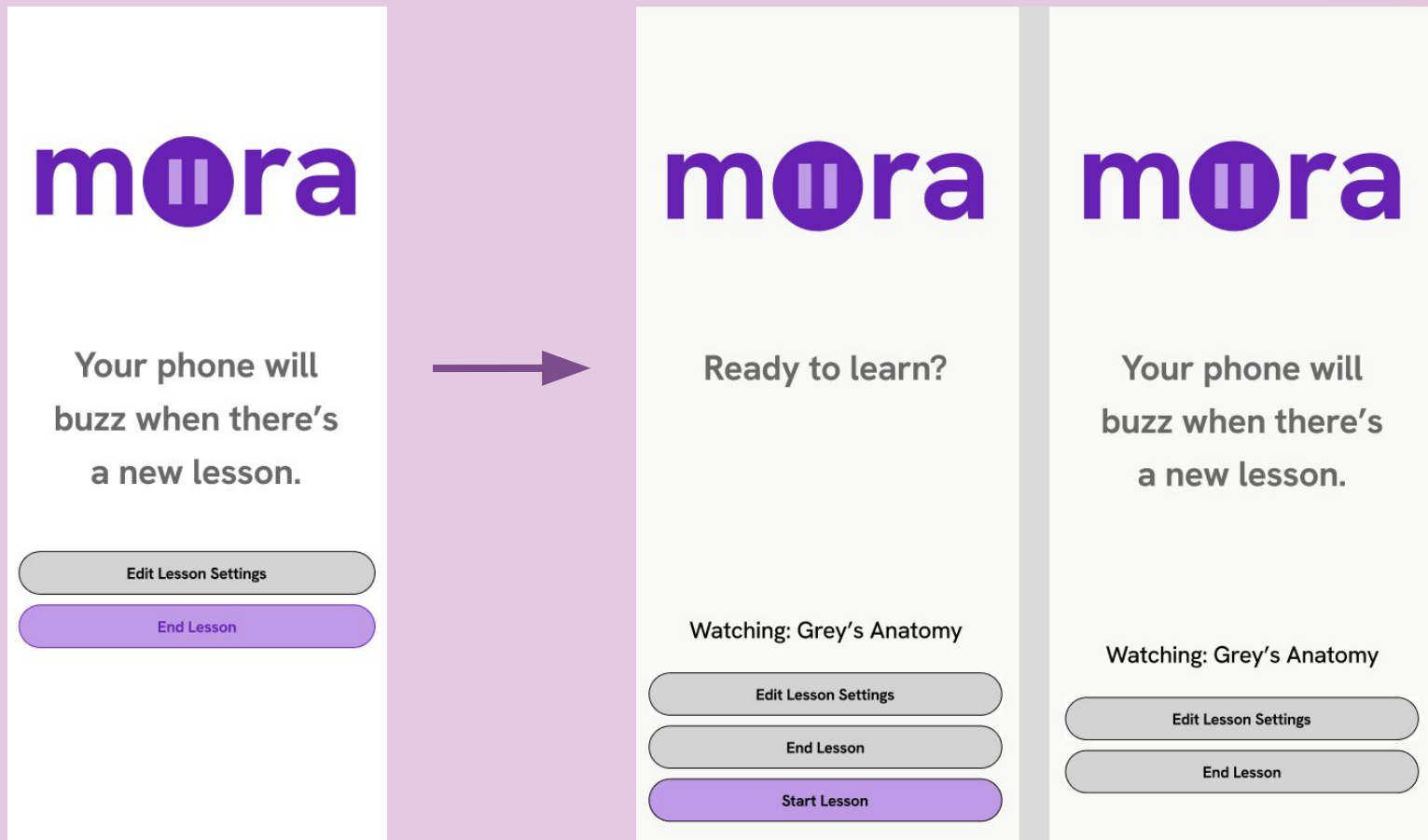
Screen Revisions

Home Screen



- Organization
- Statistics preview
- Bigger font + higher contrast
- Way to edit settings
- Redesigned 'pair' button -> 'start watching' button
- Visibility of system status

Simple Task Revision



Simple Task Revision

Lesson Settings

Paired Device: "Home iPad"

Lessons Difficulty:

✓ Easy Medium Hard

Lessons Frequency:

Rarely Occasionally Frequently Constantly

Type of cues:

"Interruptions" mode pauses automatically, whereas "suggestions" mode prompts you to choose whether to pause when notified.

✓ Interruptions Suggestions

Save Settings

Lesson Settings

Paired Device: "Home iPad"

Lessons Difficulty:



✓ Easy Medium Hard

Lessons Spacing:



1 min 10 mins 20 mins 30 mins

Type of cues:



✓ Interruptions Suggestions

Save Settings

- Alignment
- Slider labels
- Default settings
- Information icons about app-specific terminology
- Contrast

New Simple Task Screens

Grey's Anatomy

1/4

Respond in Spanish

Who did Meredith just say "hola" to?

Type here...

Are you sure you want to end this lesson?

Cancel

Yes, quit.

Submit

End Lesson

Lesson Settings

Paired Device: "Home iPad"

As you progress, each difficulty will be dynamically adjusted to align with your AI-determined proficiency level.

Got it

Lessons Spacing:

1 min

10 mins

20 mins

30 mins

Type of cues:

✓ Interruptions

Suggestions

Save Settings

Lesson Settings

Paired Device: "Home iPad"

Lessons Difficulty:

✓ Easy

Medium

Hard

Lessons spacing is the amount of time between lessons.

While these benchmarks are only approximate, greater spacing means less frequent learning.

Got it

Lessons Spacing:

1 min

10 mins

20 mins

30 mins

Type of cues:

✓ Interruptions

Suggestions

Save Settings

Lesson Settings

Paired Device: "Home iPad"

Lessons Difficulty:

✓ Easy

Medium

Hard

Lessons Spacing:

1 min

10 mins

20 mins

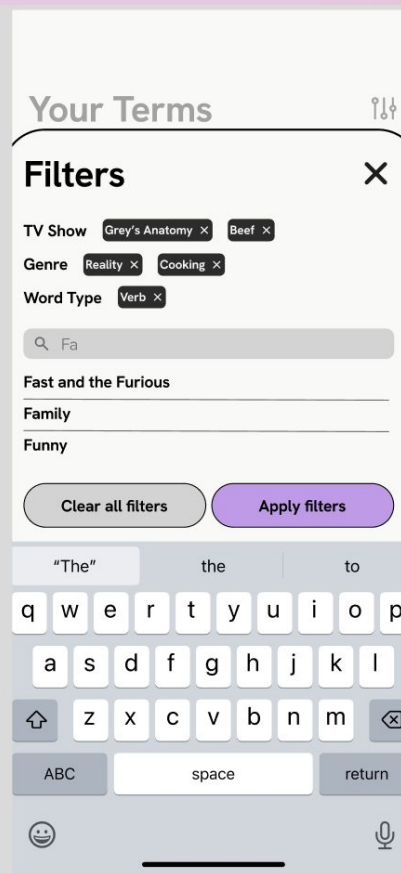
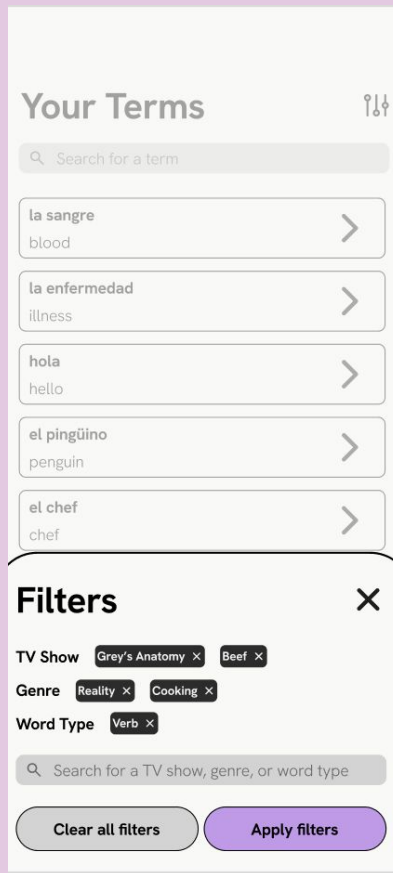
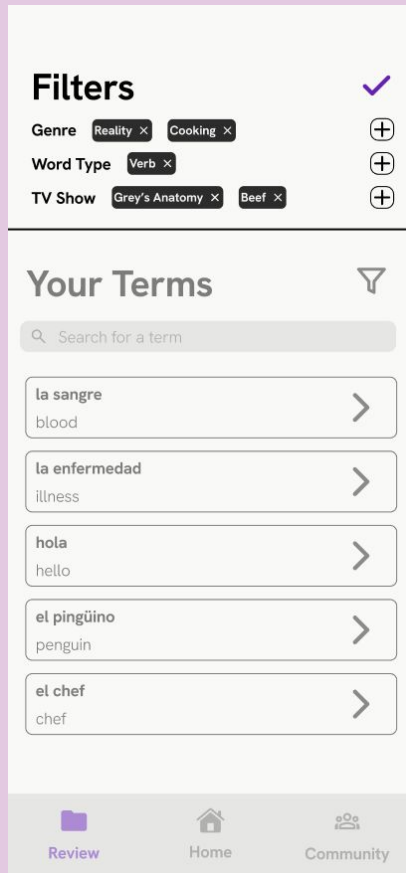
30 mins

"Interruptions" mode pauses automatically, whereas "suggestions" mode prompts you to choose whether to pause when notified.

Got it

Save Settings

Moderate Task Revision



Moderate Task Revision

Way to go!

Here's what you reviewed...

la sangre
blood

la familia
family

una cirugía
surgery

la recuperación
recovery

Lesson History

Vocab Type

● Adjective 25%

● Noun 50%

● Verb 25%

End Review

Review

Home

Community

Way to go!

You got 2 out of 3 terms right.

Correct terms ...

la recuperación
recovery

la familia
family

Incorrect terms ...

la sangre
blood

End Review

Review

Home

Community

← My Stats

Learning Spanish since November 2024.

Activity

347 terms seen

211 terms reviewed +7

30 hours learning +0.25

9 shows watched

This Week

| Day | Minutes Learning |
|-------|------------------|
| Mon | 70 |
| Tues | 150 |
| Wed | 50 |
| Thurs | 130 |
| Fri | 0 |
| Sat | 0 |
| Sun | 0 |

AI-determined Proficiency Level ⓘ

Beginner

Conversational

Advanced

Fluent

Review

Home

Community

Moderate Task Revision

←

Lesson!




la sangre [la 'sangre] 🔊
blood

Example:
Prepárate, la sangre está en camino.
Get ready, the blood is on its way.

←

Review term!



From Grey's Anatomy

la sangre 🔊
blood

Example:
Prepárate, la sangre está en camino.
Get ready, the blood is on its way.

- Better title
- Description of show
- Removed IPA transcription
- Colors + hierarchy

Moderate Task Revision

×

Saving your progress...

Q1: Fill in the blanks with the correct terms.

Dr. Grey is going to perform
 on a patient soon.

The patient's is
feeling very about
the process of .

familia

nerviosa

una surgía


recuperación



×

1/3

Choose the Spanish word that's best depicted by the screenshot.



la tristeza

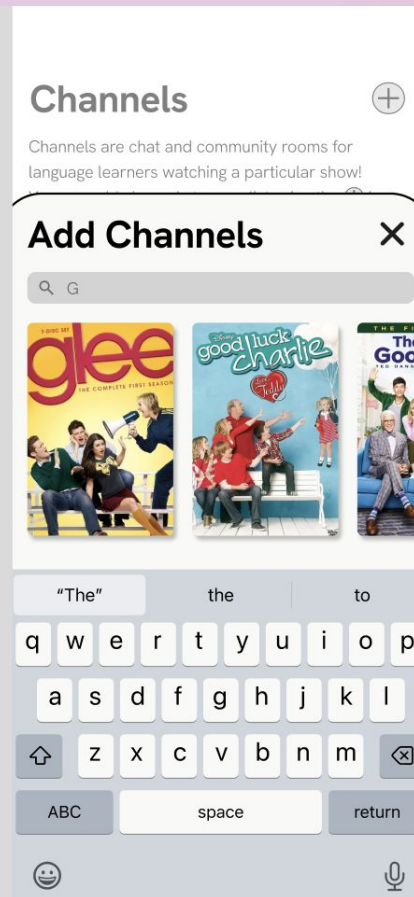
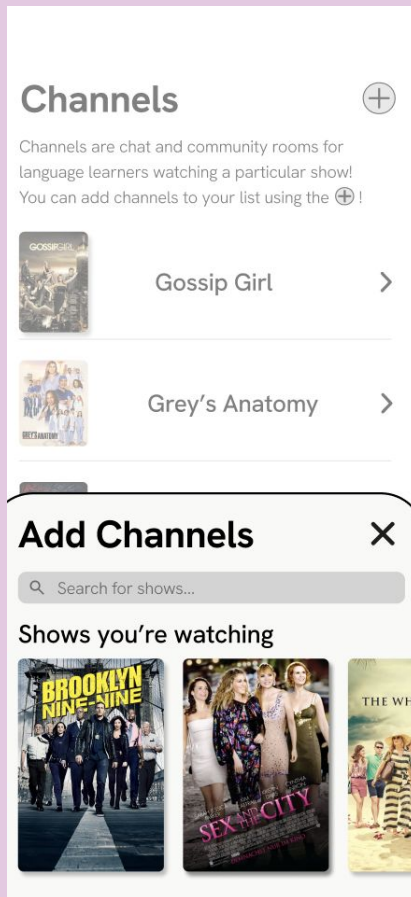
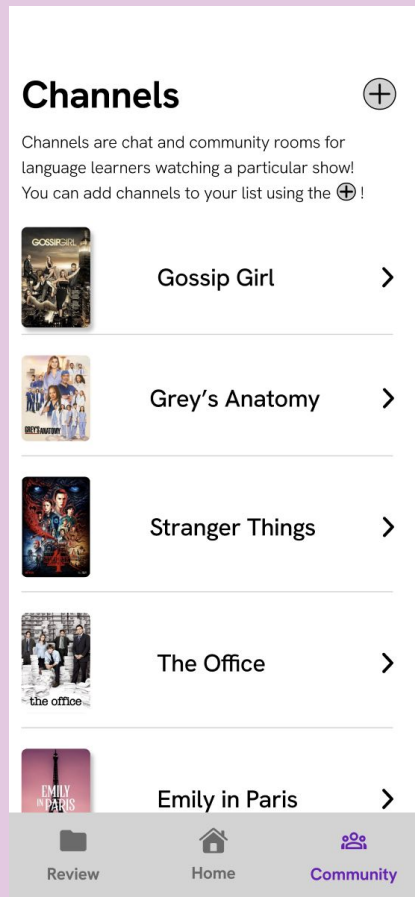
nerviosa

la familia

el cerebro

Submit

Complex Task Revision



Complex Task Revision

Start a Watch Party

Lessons Difficulty:

Easy Medium Hard

Lessons Frequency:

Rarely Occasionally Frequently Constantly

Competitive: ☐

Start

Review Home Community



← Start Watch Party

Quiz Difficulty ⓘ

✓ Easy Medium Hard

Quiz Spacing: ⓘ

1 min 10 mins 20 mins 30 mins

Competitive: ☒ ⓘ

Start

Review Home Community

← Start Watch Party

Quiz Difficulty: ⓘ

✓ Easy Medium Hard

Quiz Spacing: ⓘ

1 min 10 mins 20 mins 30 mins

Competitive: ☒ ⓘ

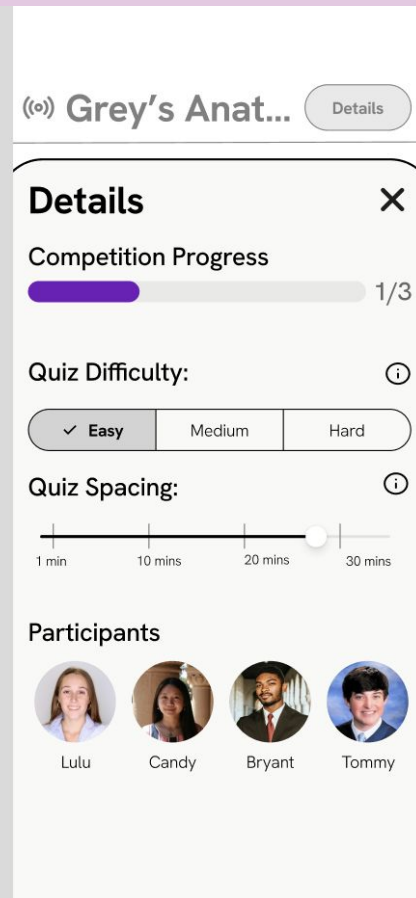
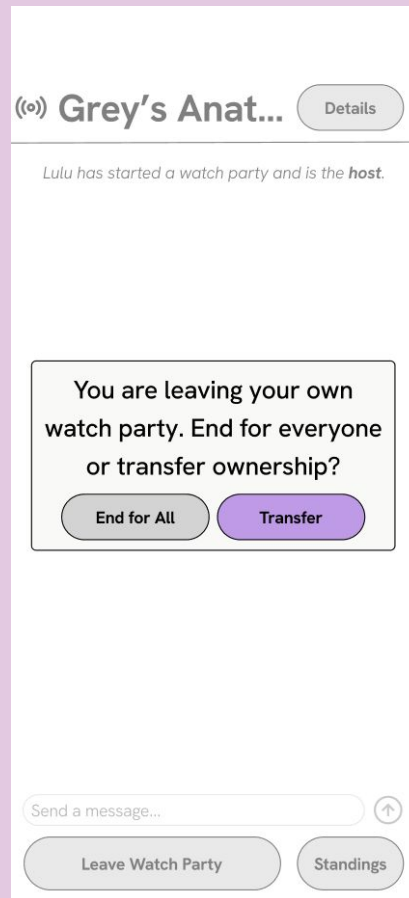
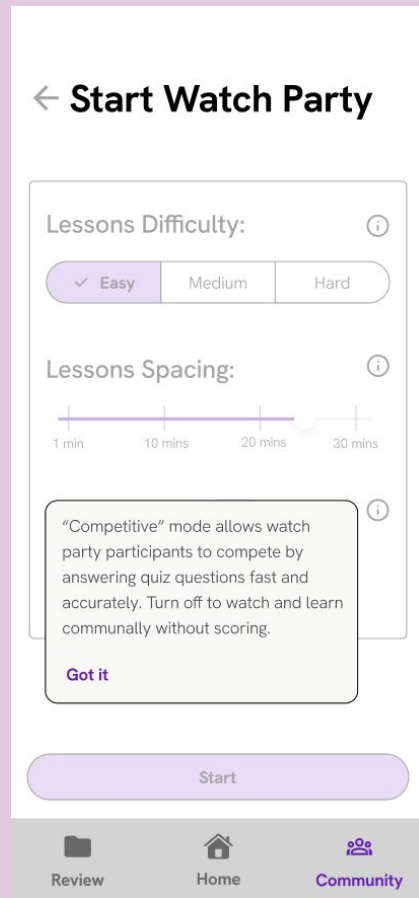
Number of Questions: ⓘ

2 4 6 8

Start

Review Home Community

New Complex Task Screens



Usability Goals Progress



Fun

- More specific and granular statistics → excited, rewarding feeling
- Greater centered media in the review activity with new question type



Eagerness

- Made the simple task more flexible (can more easily end, etc.) so lower barrier to use
- Improved the home screen (i.e. added stats) to make it more engaging and enticing



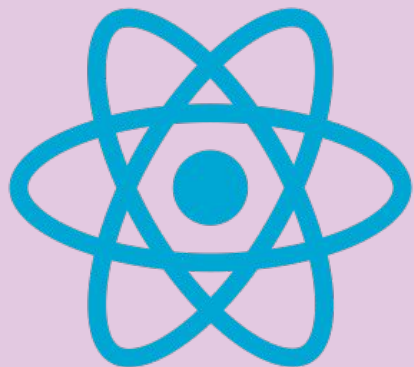
Intuitive

- Buttons are more clearly distinguished and their icons more natural mappings
- Added many (i) icons to get help on app features where necessary

03

Hi-Fi Status

Our Tools



React Native



Implemented features

Review task functionally complete!

- 3 different types of activities
 - Review term page
 - Scrollable list of terms
 - Filter terms by genre/TV show/word type
-
- Navigation bar to move between main tasks
 - Stack navigation for the review activity

Unimplemented features

Review task:

- Confirmation screen for exiting
- Stats page
- Remove navigation bar from activities pages

Other:

- Onboarding screens
- Quiz/lesson screens
- Chat (with an AI companion!)
- Streaming settings
- Competition mode

Plans to finish

- Thanksgiving break
- Keep using our expo router structure to add more screens
- Hardcode the lessons
- Set up the AI chat

Wizard of Oz Techniques

- Pausing mechanism
- “AI” - Determination of pauses, lesson content, skill level, progress
- AI to allow users to “chat”

We are using these techniques to avoid actually connecting mora to a computer (complicated technology) and to not have to create a network of users for the chat (out of scope for this class).

Hardcoded Data

- User's target language
- List of words for review activity
- Review activities (but you can actually get a score)
- Available filters

Rationale: We have hardcoded this data to avoid having to use AI to generate personalized content and also to not have to rely on a user's past streaming (data we don't have).

Issues/Questions

Biggest question: how will we “connect” mora to streaming?

- Length of streaming experience
- Super Wizard of Oz: give users a list of times to hit pause for hardcoded lesson
- Most ideal: create a web app that mora can actually connect to

We are still figuring this out, and the decision will likely come down to how much time we have left after building everything else.

Plans to finish: Discussion

- We feel really great about our progress so far
- Definitely a learning curve working together at the beginning, but have gotten much faster over the course of the week
- Looking forward to dedicating time to this over the break

04

Hi-Fi Demo

05

Appendix

Complete Violations Breakdown

| Category | # of sev 1 | # of sev 2 | # of sev 3 | # of sev 4 | # total |
|-------------------------------------|------------|------------|------------|------------|---------|
| H1: Visibility of System Status | 3 | 3 | 3 | 0 | 9 |
| H2: Match b/w System & World | 4 | 1 | 1 | 1 | 7 |
| H3: User Control & Freedom | 0 | 5 | 2 | 1 | 8 |
| H4: Consistency & Standards | 6 | 8 | 2 | 0 | 16 |
| H5: Error Prevention | 1 | 2 | 1 | 2 | 6 |
| H6: Recognition not Recall | 1 | 1 | 2 | 0 | 4 |
| H7: Flexibility & Efficiency of Use | 4 | 3 | 0 | 0 | 7 |
| H8: Aesthetic & Minimalist Design | 5 | 5 | 1 | 0 | 11 |
| H9: Help Users with Errors | 0 | 2 | 0 | 0 | 2 |
| H10: Help & Documentation | 0 | 2 | 3 | 1 | 6 |
| H11: Accessible Design | 0 | 3 | 1 | 0 | 4 |
| H12: Value Alignment & Inclusion | 1 | 1 | 1 | 0 | 3 |
| Total Violations | 25 | 36 | 17 | 5 | 83 |

Question Revision

×

 Saving your progress...

Q2: What does 'la sangre' mean?

hospital blood

illness heart

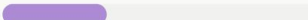
Incorrect
'la sangre' means blood

 Review

Continue



×

 2/3


Choose the best option.

What does 'la sangre' mean?

hospital blood

illness heart

Incorrect
'la sangre' means blood

 Review

Continue

- Higher contrast
- Removed 'saving your progress'
- Removed drop shadow

Moderate Task Revision (before scrapped)

×

Saving your progress...

Q1: Fill in the blanks with the correct terms.

Dr. Grey is going to perform
 on a patient soon.

The patient's is
feeling very about
the process of .

familia
nerviosa
una cirugía
recuperación



×

1/4

Fill in the blanks with the correct terms.

La Dra. Grey va a realizar una
 a un paciente.

La del paciente
se siente muy
por proceso de .

Word Bank

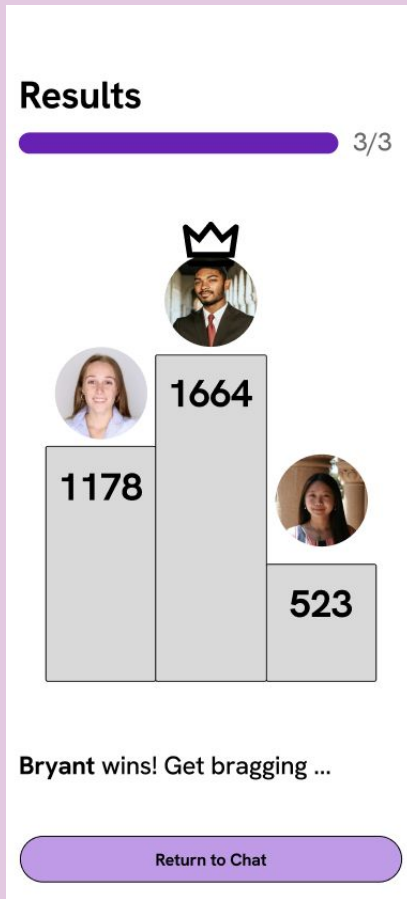
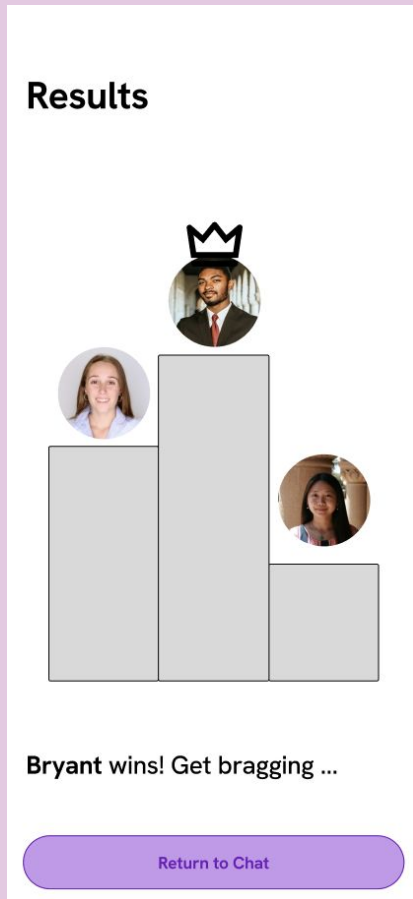
familia cirugía
nerviosa recuperación

Submit

- System status
- Submit button
- Organization
- Lesson content
- Contrast

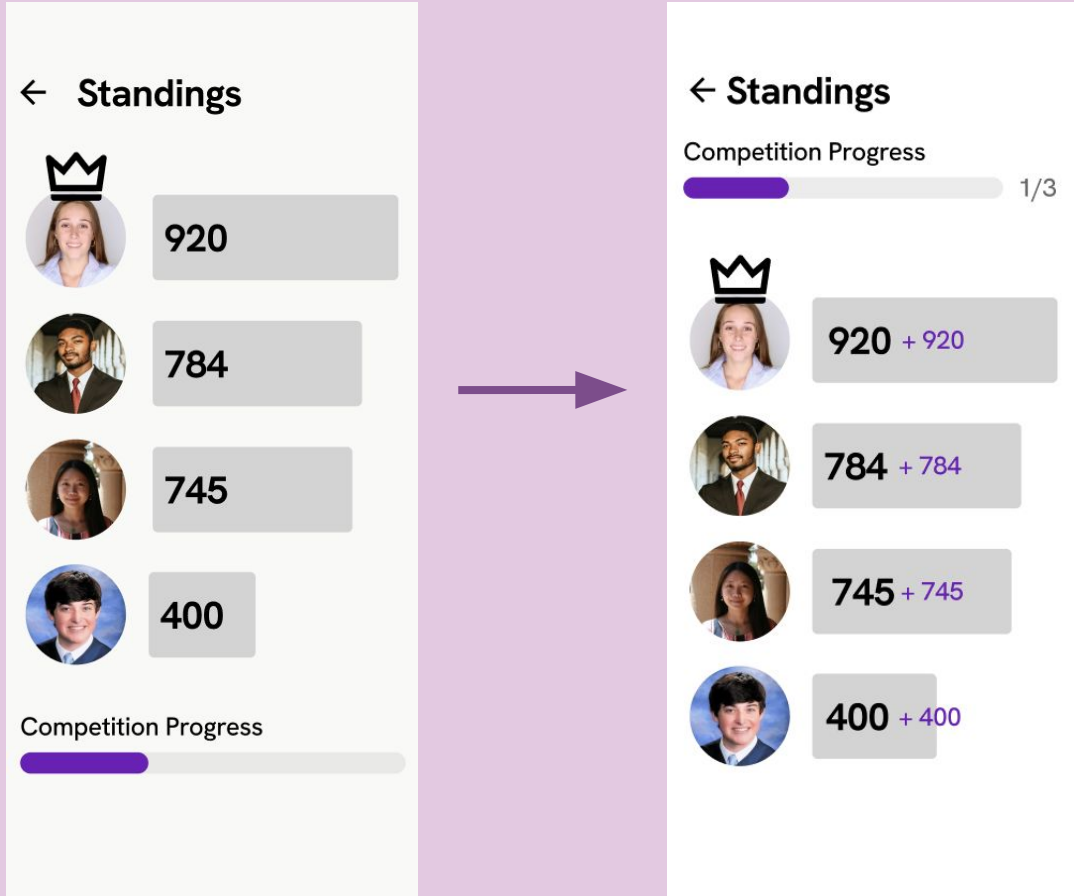
Scrapped because we wanted to utilize show content more effectively in questions + cannot implement feasibly in React Native.

Question Revision



- Higher contrast
- Moved progress bar
- Added scores to bars

Question Revision



- Moved progress bar
- Added addition of scores to each bar to show results after each question