

Usability Testing

of **duolingo** the Language Learning App

app version 6.181.0 on iOS 15.7

Team
06



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"These folks have
done a great job"

Presentation Contents

duolingo

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02. Research Design

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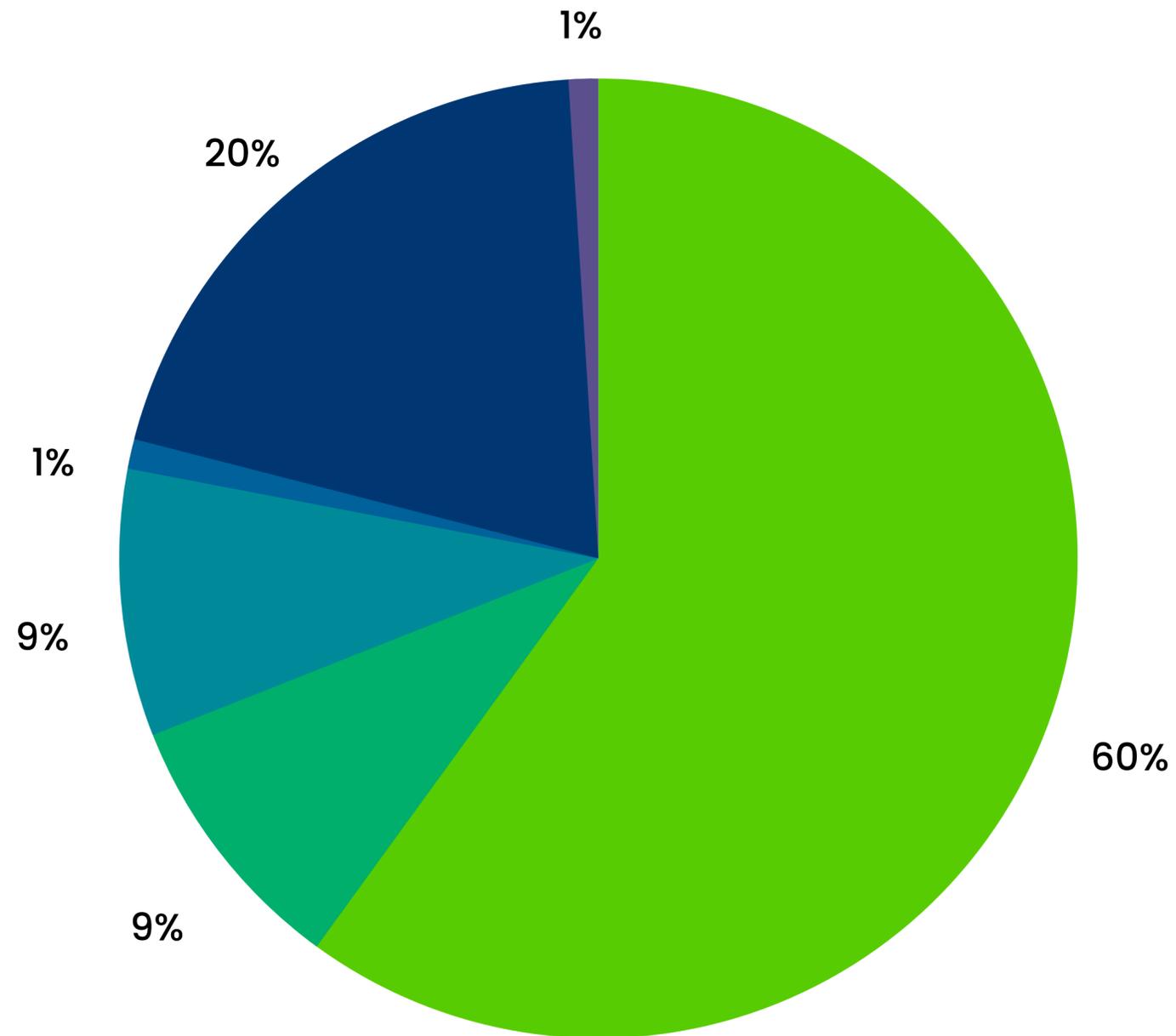
04. Task by Task Analysis

05. Post Task Question Analysis

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Direct Competitors Market Overview

duolingo



-  Duolingo app, with 100M+ Downloads
-  Babel app, with 10M+ Downloads
-  Memrise app, with 10M+ Downloads
-  Falou app, with 1M+ Downloads
-  LingoDeer app, with 20M+ Downloads
-  Mango app, with 1M+ Downloads



The **application is Awesome**, users are definitely loving the content, but we wanted to make it even better

01.

Research Objectives and Goals

Objectives:

1. Evaluate the user experience for language learning and if they're meeting the needs and expectations of the users.
2. Find out how easy it is for the users to access and use the features offered by the application.
3. Use findings from research to identify design opportunities and make actionable recommendations.

Goals

The goal of this test is to determine the efficiency and overall usability of the app, and suggest recommendations on areas of improvement. This includes finding issues in -

- a. Information architecture
- b. Visual Design
- c. User experience

02.

Research Design

Participant Sample

Research Design

Testing Environment

- Screened and recruited 7 participants from a pool of 12
- Participants are a mix of Duolingo users and non-users
- Recruited participants with varied levels of experience ranging from 1 week to 4+ years
- Their usage frequency ranged from a inconsistent usage/ a few times a week to everyday usage.
- Participants' language learning ranged from 1 to 3 languages at the same time

RESEARCH DESIGN



Participant Sample

Research Design

Testing Environment

- Screener contained 8 qualifying questions.
- Two warm-up questions designed to build rapport with the participant
- 8 tasks assessed to determine the usability of the app inline with research objectives
- 10 SUS questions presented to the users post-test to evaluate participant experience
- 3 more post-test questions asked to get qualitative insights on participant experience

RESEARCH DESIGN

duolingo

Participant Sample

Research Design

Testing Environment

- We scheduled a **30-min session** with each participant for the test
- **Each test session had** one moderator and one notetaker.
- Tasks were **screen recorded** for later review and comparison.
- Participants were **asked to think out loud**. (task time was not recorded).
- All tests were **conducted in-person**

03.

Severity Rating Key

Severity Rating Key

This report utilizes a scale of 0 to 4; each number's individual denotation is on right

- 0 No usability problem at all
- 1 Need not be fixed unless extra time is available
- 2 Minor usability problem: fixing this is low priority
- 3 Major usability problem: should be given high priority
- 4 Usability catastrophe: should fix immediately

Success Metric

This system specifies the benchmarks we used to determine the degree of success for each task

-  **Successful**
Completes the task with minimal efforts
-  **Partially Successful**
Completes the task with moderate efforts
-  **Failure**
Does not complete the task or completes the task with considerable effort
-  **Skip**
Skips due to time constraints or the task was not meant for a particular user type

Error Rate

$$= \frac{\text{Number of Errors}}{\text{Total Number of Users x Total Possible Errors}} \times 100$$

04.

Task by Task Analysis

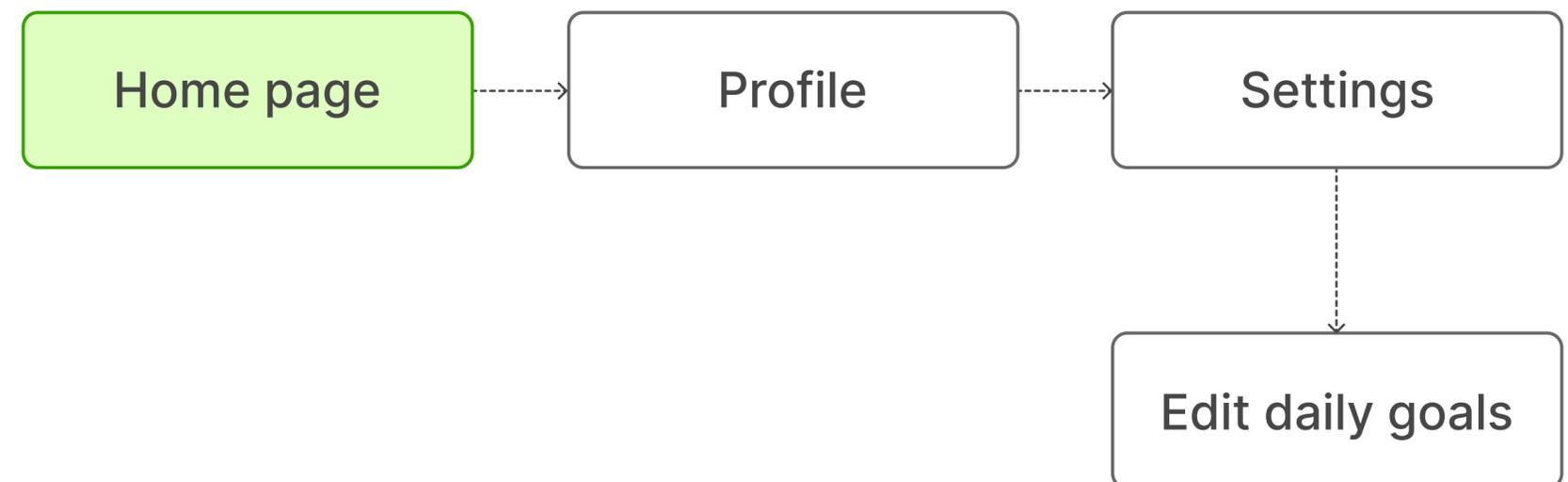
Task 01

Change Daily Goals

Scenario

Unexpectedly your trip to Spain has been advanced, and you need to attend a conference where you have to speak Spanish. Now you are in the mid-level of learning the language, and you want to take as many lessons as possible before it. **How will you change the learning time to 20 min/day?**

Flow



TASK 1 | Change Daily Goals

Issues

- Lengthy and uncategorized Settings page > options hard to recognize when skimming

Help & Documentation

Severity **3**

- Gear icon not obvious > Profile page confused with Settings

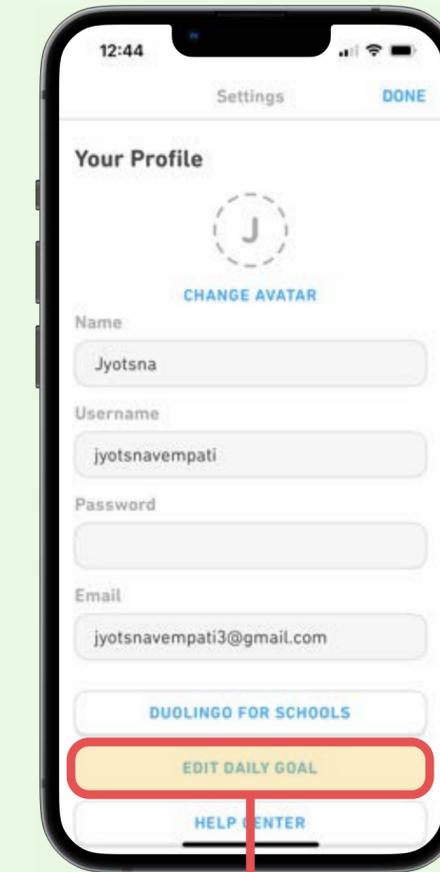
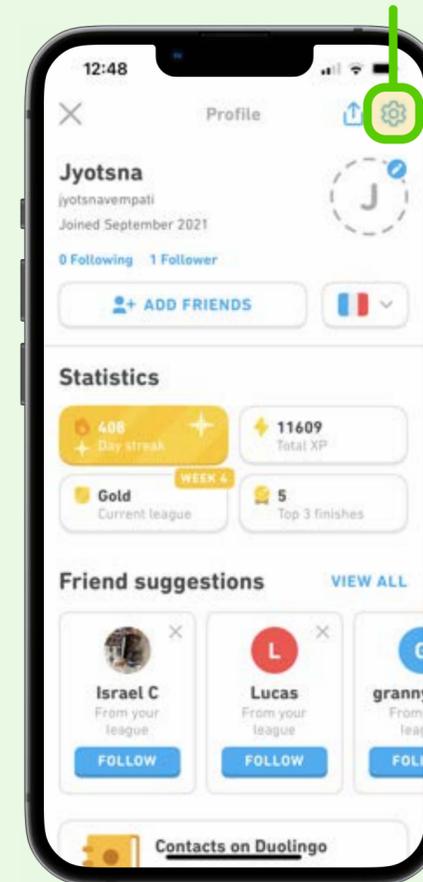
Aesthetic & Minimalist Design

Severity **2**

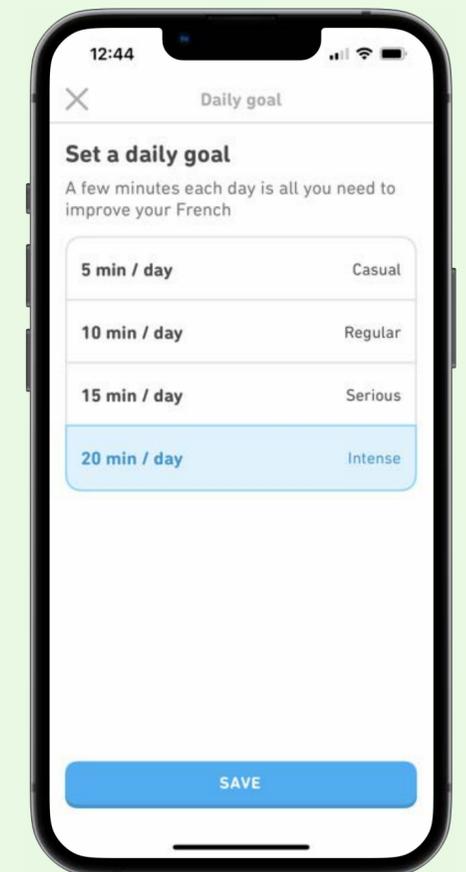
- Icons on home page overwhelming for new users



Click on Settings in Profile



Click on Edit Daily Goal option

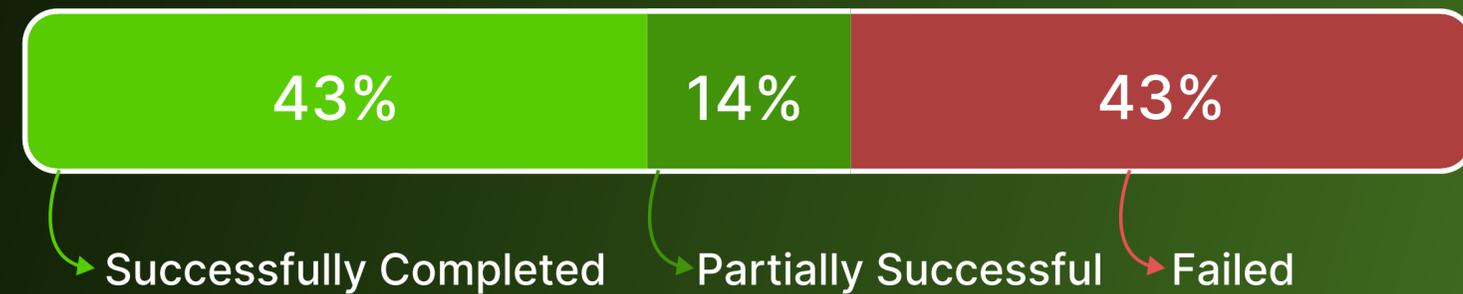


Select a daily goal



Home page Icons

Success Rate



Error Rate

25%

Recommendations

- Categorize the Settings page by functions
- Label icons for users to identify and navigate easily



“I was hoping it would be in the Settings tab, but it’s not.”
(Note: it is in the settings.)

Task 02

Add A New Course

Scenario

Let's say you are planning to visit India very soon and want to learn Hindi so it's easier to communicate with the locals. **How would you start learning Hindi on Duolingo?**

Flow



TASK 2 | Add A New Course

Issues

- Instructions in the Help page do not match the app's interface and confuse new users

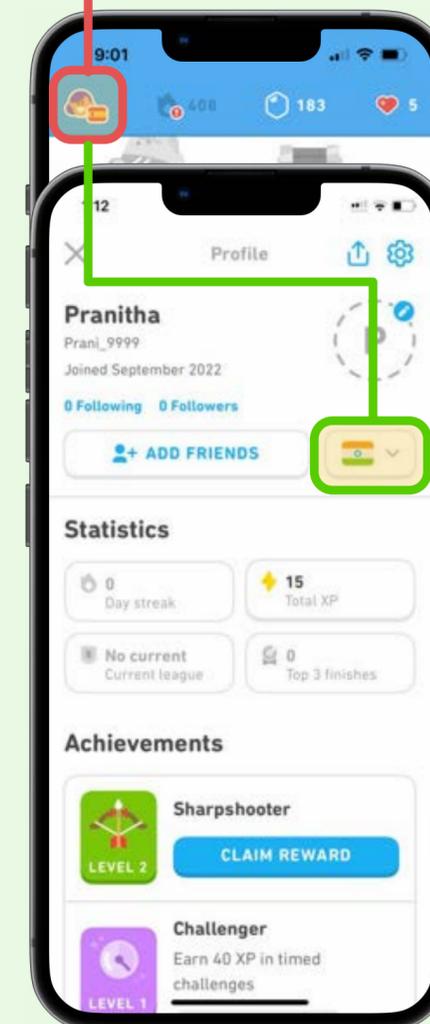
Help & Documentation

Severity 3

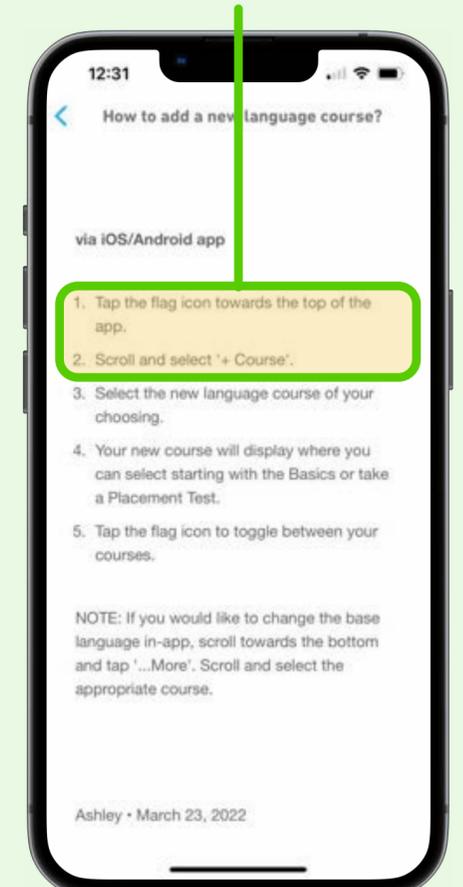
duolingo

Icon placement changed in newest version

Add a course from Flag icon



Help page not updated



TASK 2 | Add A New Course

Issues

- Instructions in the Help page do not match the app's interface and confuse new users

Help & Documentation

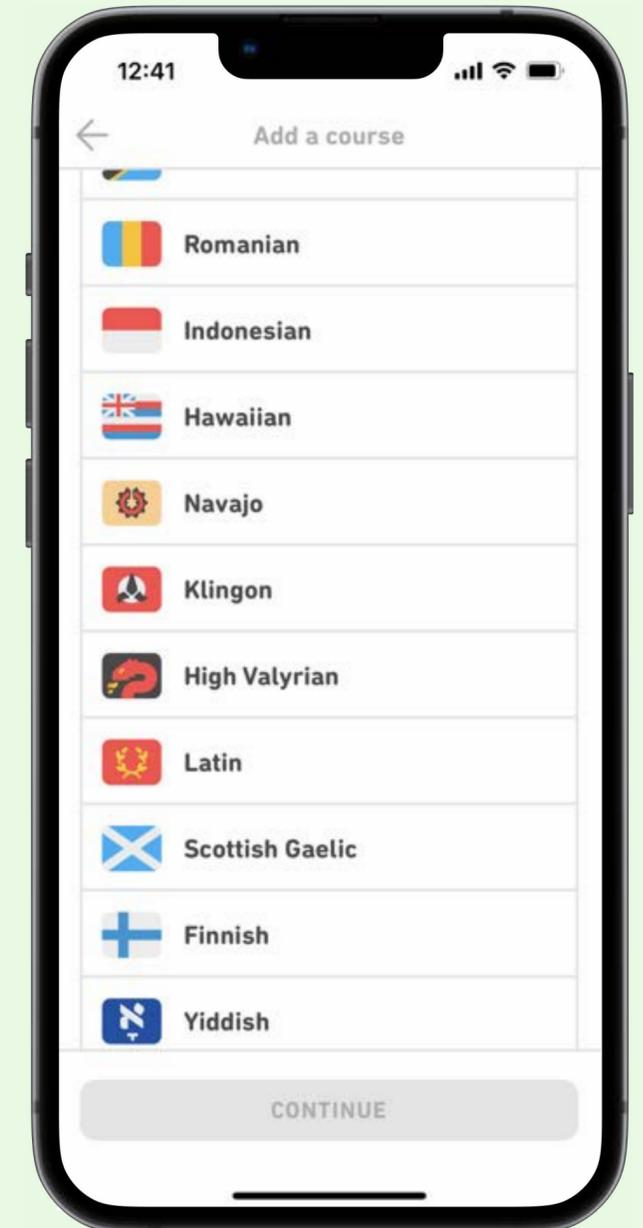
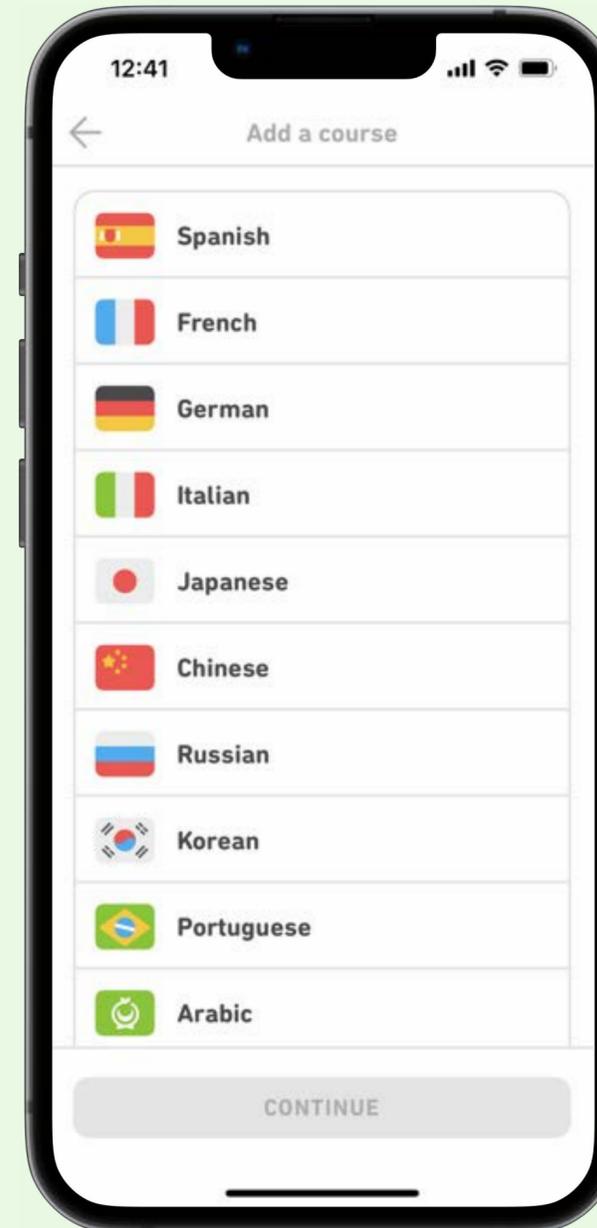
Severity 3

- Users take long to read and choose from the list of languages

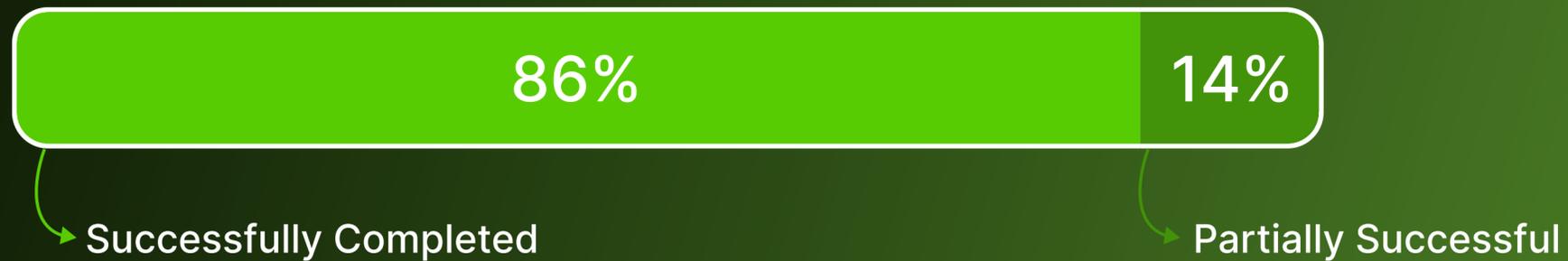
Flexibility & Efficiency of Use

Severity 2

duolingo



Success Rate



Error Rate

20%

Recommendations

- Introduce a search function or organize languages alphabetically
- Update the Help pages to match the latest version of the app.



“Can I use the help option?”

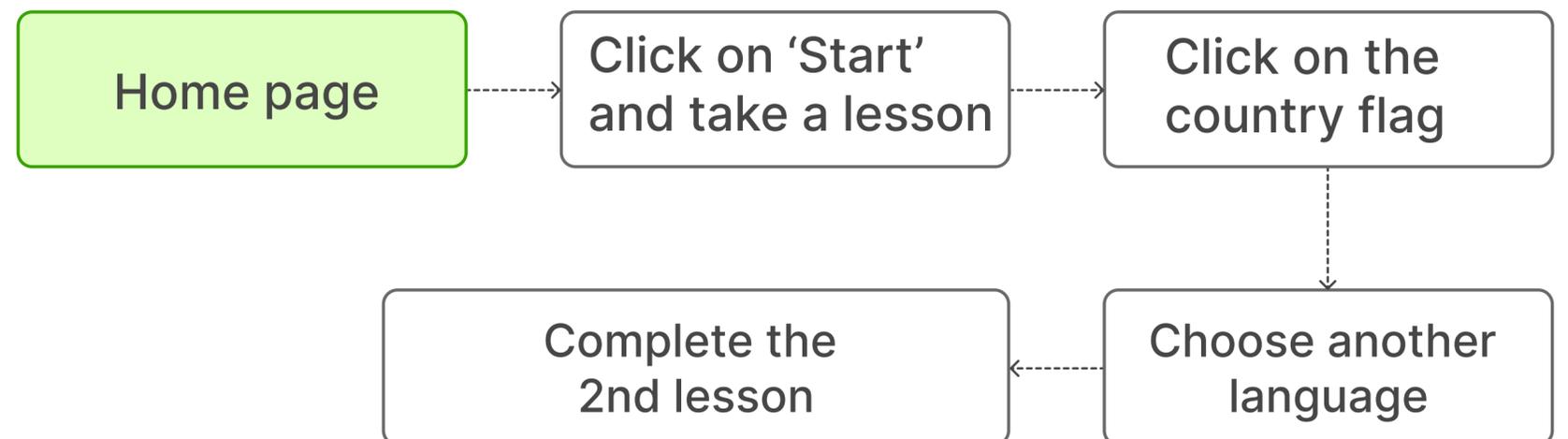
Task 03

Take Lessons in 2 Languages

Scenario

So now that you have started to learn Hindi, can you **complete one lesson** in Hindi and one in Spanish and **tell us how you feel about the experience?**

Flow



TASK 3 | Take Lessons in 2 Languages

Issues

- Some participants mistook the beginner lessons for intermediate level and quit the lesson immediately

Match Between System & the Real World

Flexibility & Efficiency of Use

Severity 2

- Users quickly lose motivation after losing all (5) lives

Help Users Recognize, Diagnose & Recover from Errors

Severity 2

- Users are unaware that tapping on underlined words can show meanings

Match Between System & the Real World

Severity 1

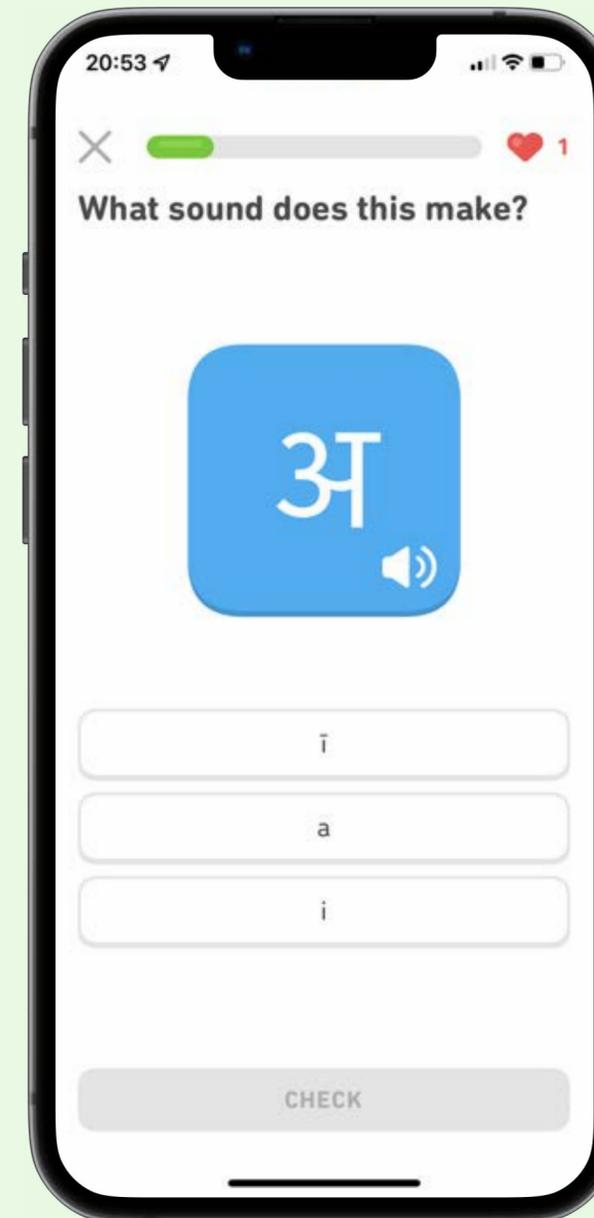
- Audio not authentic enough

Match Between System & the Real World

Severity 1

duolingo

Beginner lesson without guide



Underline word not obvious



Success Rate



Error Rate **5%**

Recommendations

- After 3 consecutive errors, prompt the user to review the guidebook.
- Highlight the underlined text in blue color.
- Change the audio from computer generated voice to native speakers' recordings.



"The language (Hindi) doesn't sound natural."

"I don't think I'll be able to do this, it's not a beginner level course."

"It would be nice to practice before answering the questions"

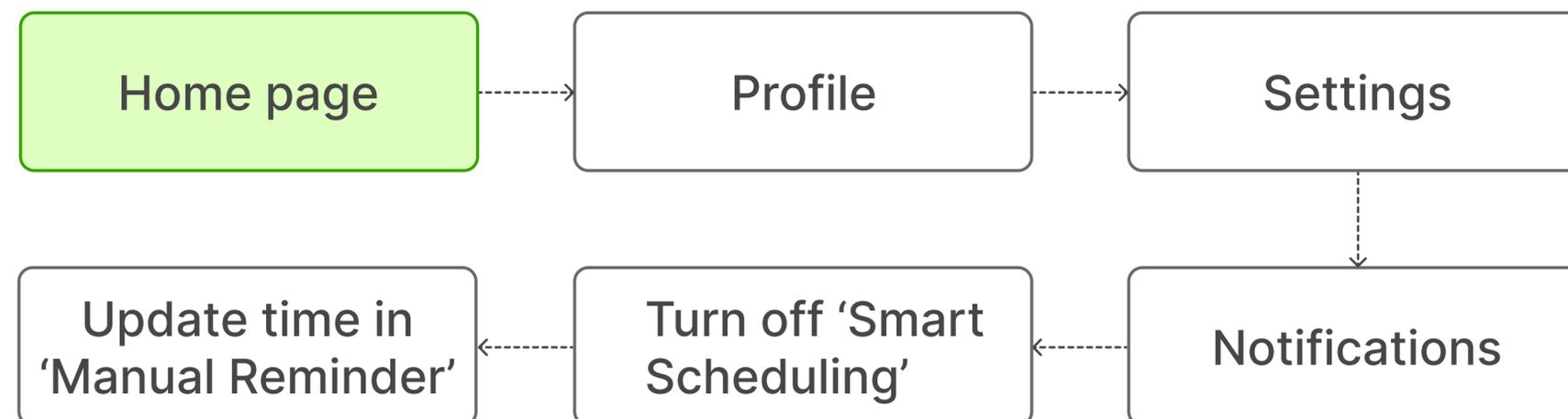
Task 04

Change Notification Time

Scenario

On your busy schedule, you want the app to remind you only at a particular time and not get notifications at random times. **Can you change the notification time to 4:00 pm daily?**

Flow



TASK 4 | Change Notification Time

Issues

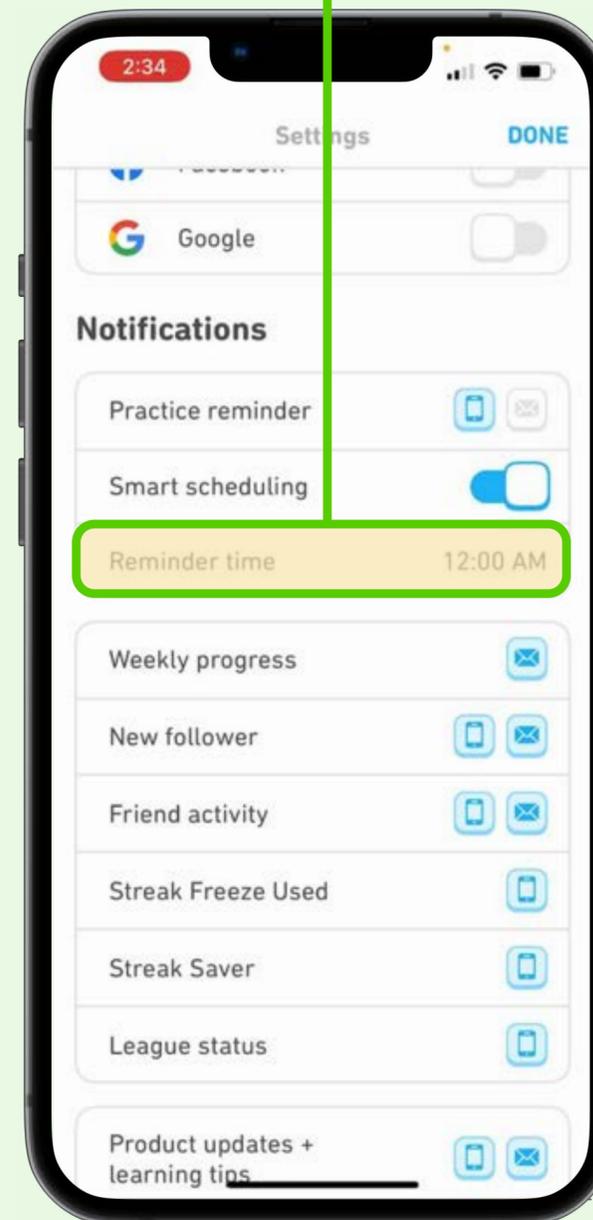
- Participants repeatedly tapped on the greyed-out 'Reminder Time' option, not realizing that they needed to turn off the 'Smart Scheduling' toggle first.

Help Users Recognize, Diagnose & Recover from Errors

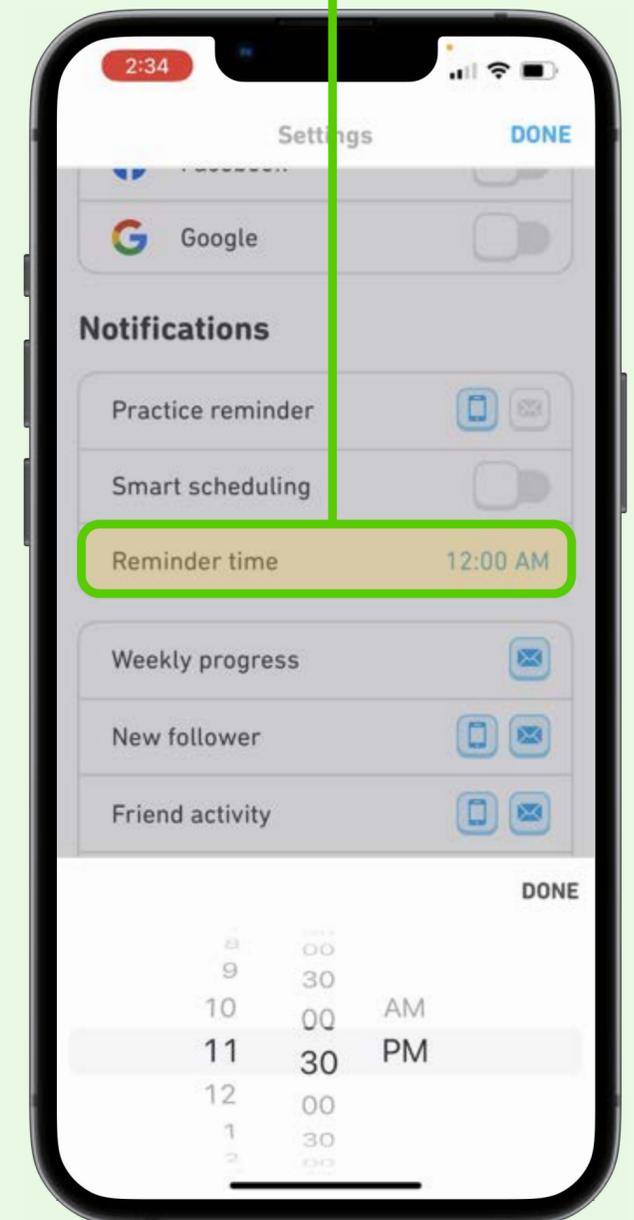
Severity 2

duolingo

Reminder Time not available



Change after Smart Scheduling turned off



Success Rate



Error Rate

19%

Recommendations

- Use similar terminology, so users can understand that smart scheduling & reminder time are complimentary options



“I remember this option in Settings page earlier.”

“Why doesn’t this work?”

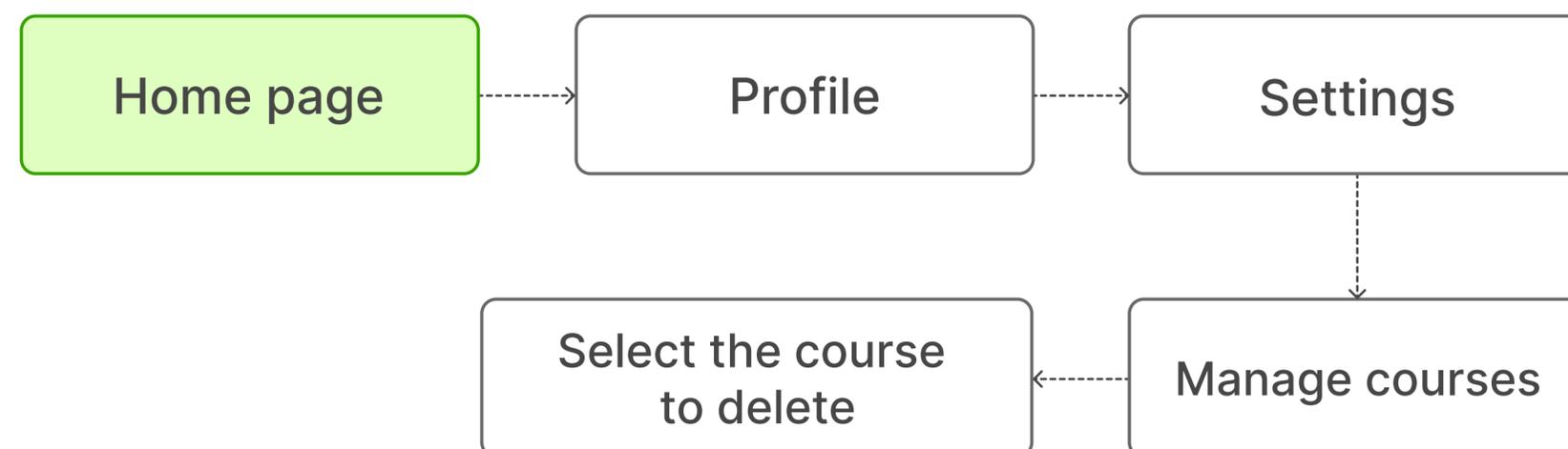
Task 05

Delete A Language Course

Scenario

Now, the trip you had planned to India has been canceled, and you don't want to continue learning. **How do you delete the language from your course list?**

Flow



TASK 5 | Delete A Language Course

Issues

- List of courses appear in 2 places > users expected to see a delete option in both but cannot find it

Consistency & Standards

Severity 1

- 'Manage Courses' in Settings is exclusively designed to delete a language, but it is not obvious when users skim through the page

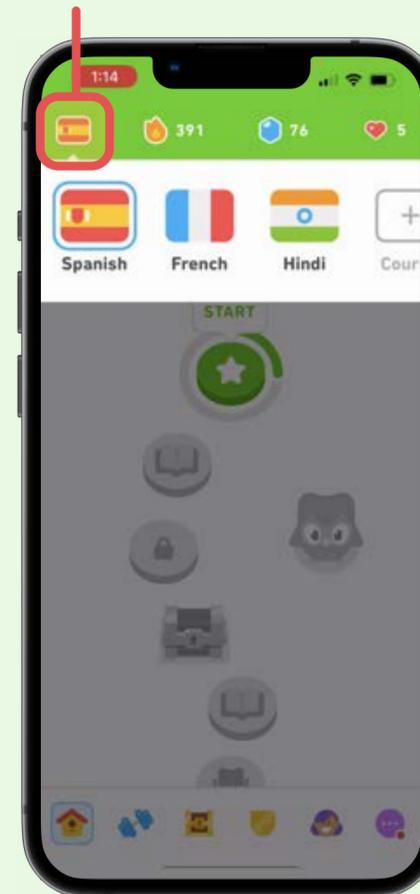
Consistency & Standards

Error Prevention

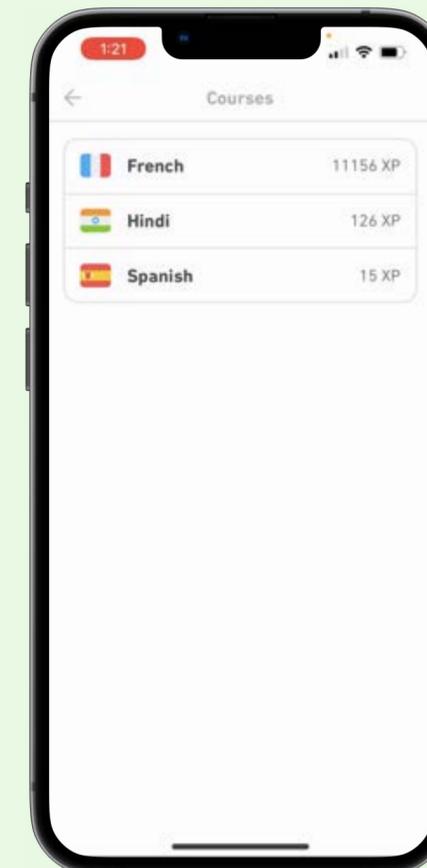
Severity 2

duolingo

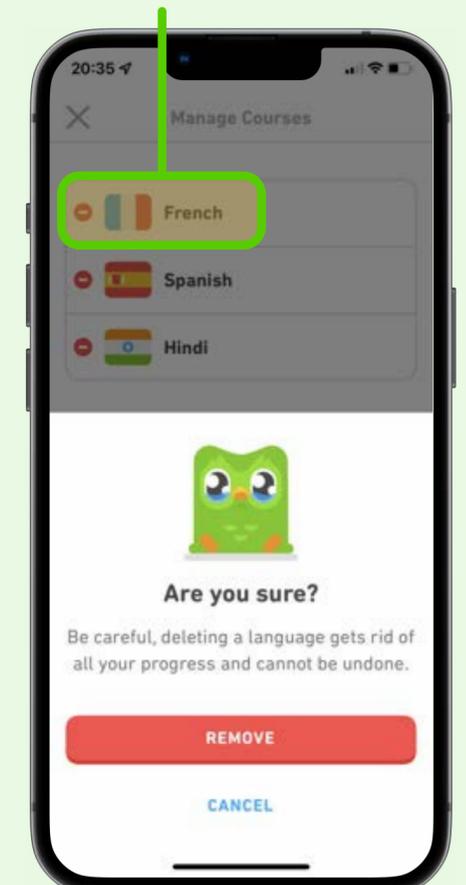
Flag icon on home page



Cannot Delete



Only available in Manage Courses



Success Rate



Error Rate

43%

Recommendations

- Change 'Manage Courses' to 'Delete Courses'
- Add manage/delete course options in the course list throughout the app



"I never thought of this option before."
"I can't find the option."

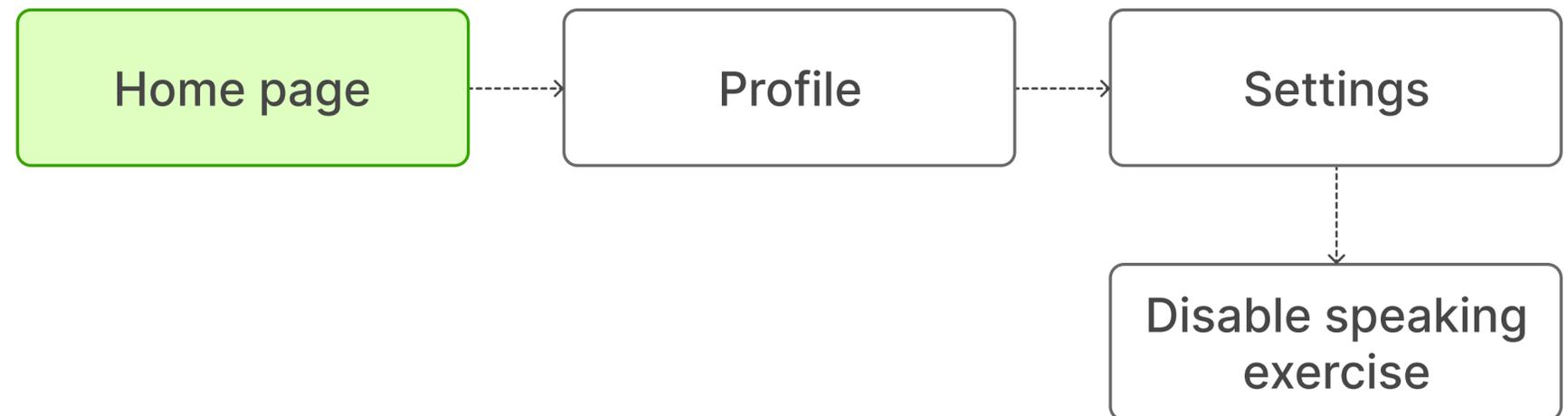
Task 06

Turn Off Speaking Component

Scenario

Regarding your Spanish course, you know you can speak in Spanish so you don't want to spend time learning the speaking components of the lesson. **How can you turn off the speaking component?**

Flow



TASK 6 | Turn Off Speaking Component

Issues

- Participants expected different options in different language interfaces because of change in icon placements

Consistency & Standards

Help & Documentation

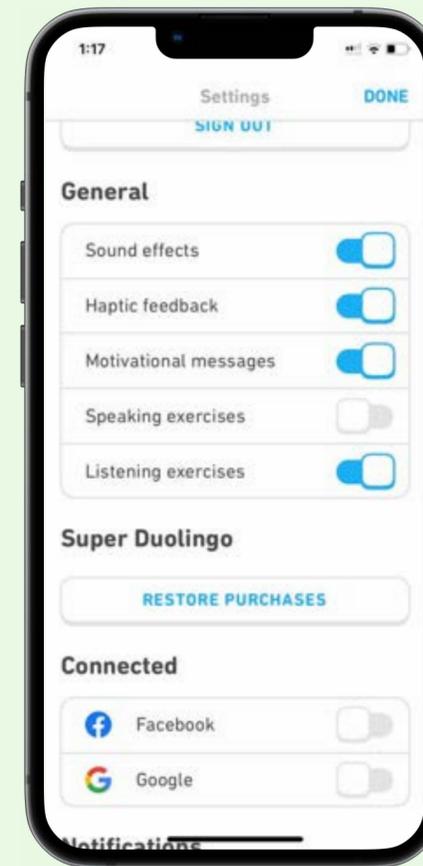
Severity 1

- Some expected the option to be mentioned in their list of courses

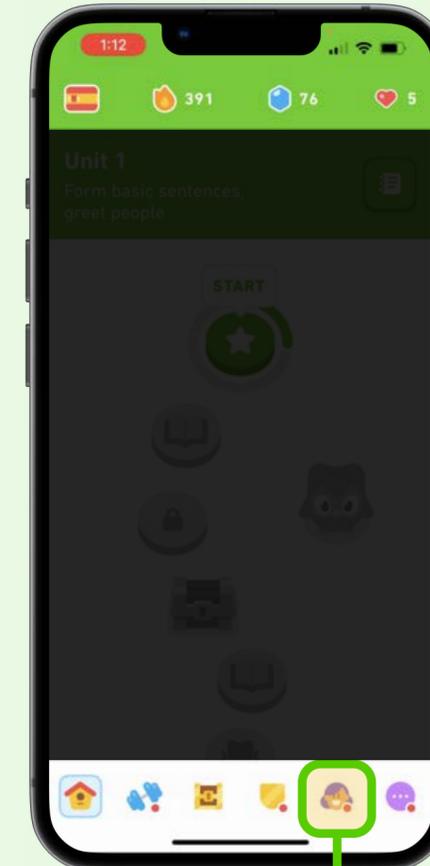
Flexibility & Efficiency of Use

Severity 1

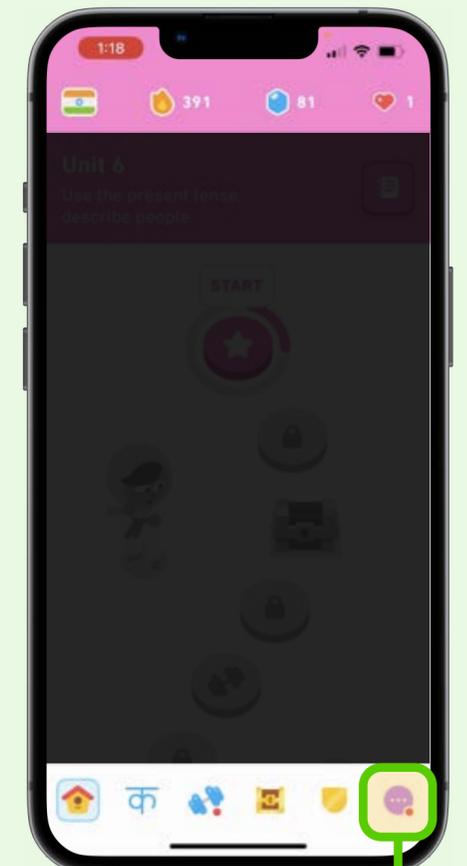
duolingo



Settings

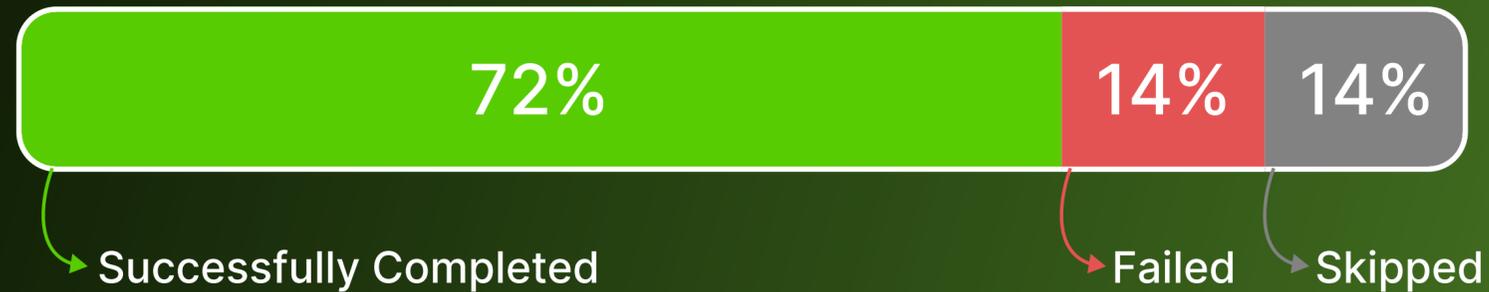


Profile in tab bar



Profile in meatball menu

Success Rate



Error Rate

27%

Recommendations

- Add manage components options of each course in the course lists throughout the app
- Maintain consistency in icon placements across languages



"I remember seeing this option from earlier"

Task 07

Navigate Icons In Tab Bar

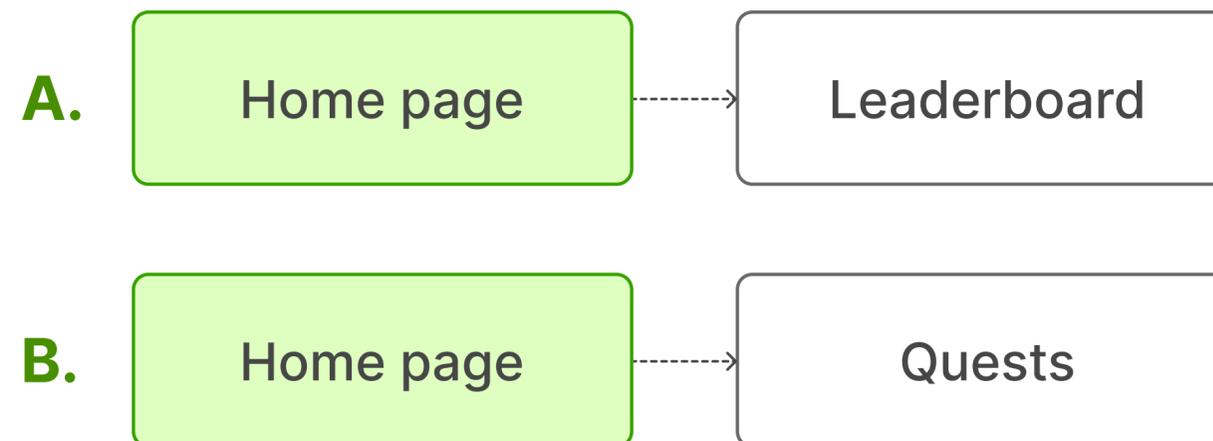
Scenario

And as you are making incredible progress, you want to navigate through your app to check on the features below. **How would you do it?**

a. leadership board

b. quests you completed for the day

Flow



TASK 7 | Navigate Icons in Tab Bar

Issues

- Some participants recalled icons from previous tasks

- Meaning of icons are unclear

Match Between System & the Real World

Severity 2

- Inconsistent terminology on the Leaderboard page (“League”) and in the help documentation (“Leaderboard”)

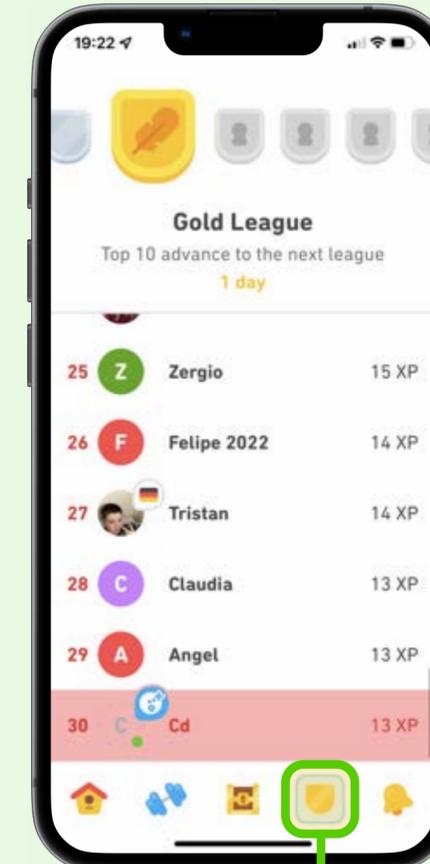
Consistency & Standards

Severity 1

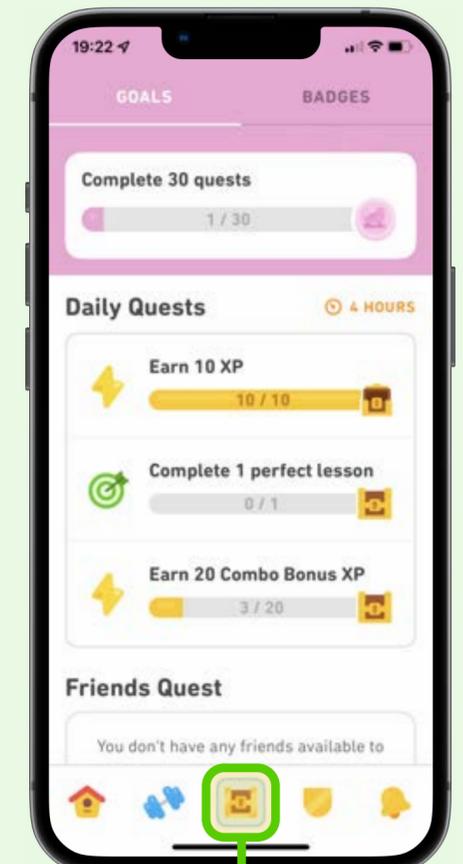
duolingo



Home



Leaderboard
& User Rank



Daily Quests

Success Rate



Error Rate

37%

Recommendations

- Icons should be labelled
- Use standard terminology across the app



“The icons are confusing. It would’ve been nice if they were labelled”

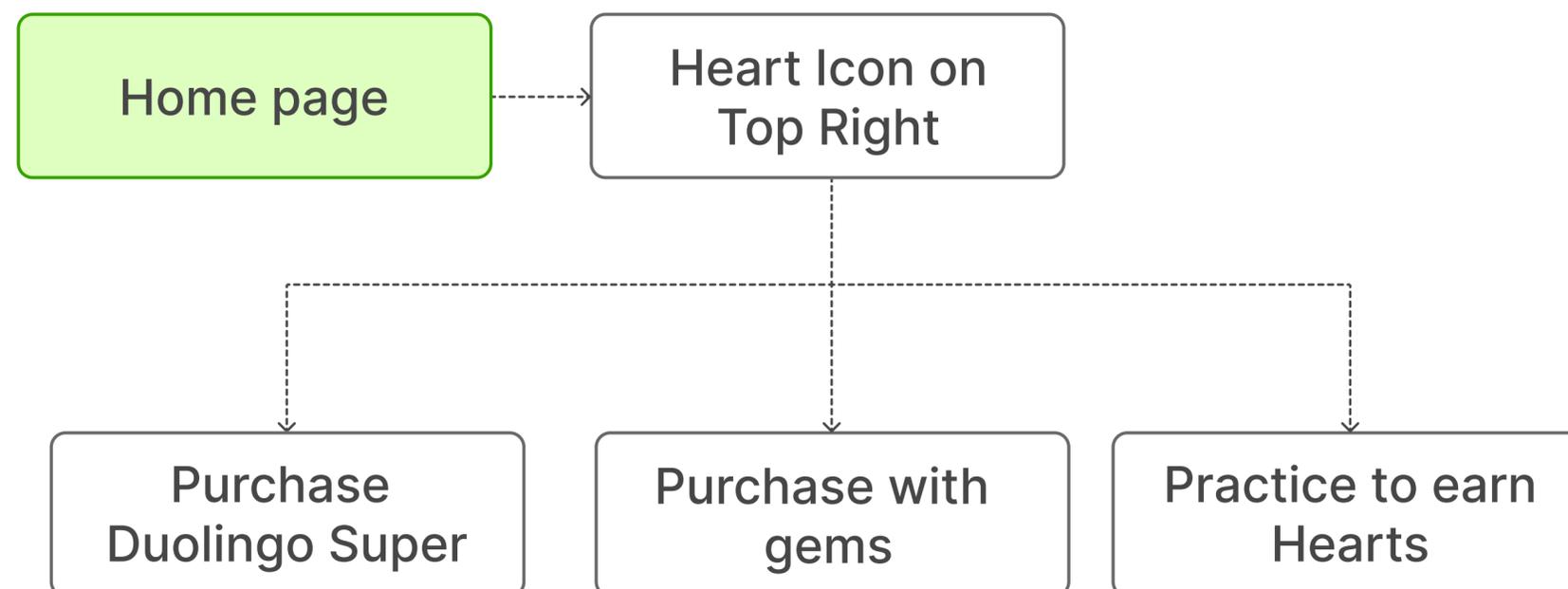
Task 08

Locate How To Refill Hearts

Scenario

Can you show us what you would do when you run out of hearts?

Flow



TASK 8 | Locate How to Refill Hearts

Issues

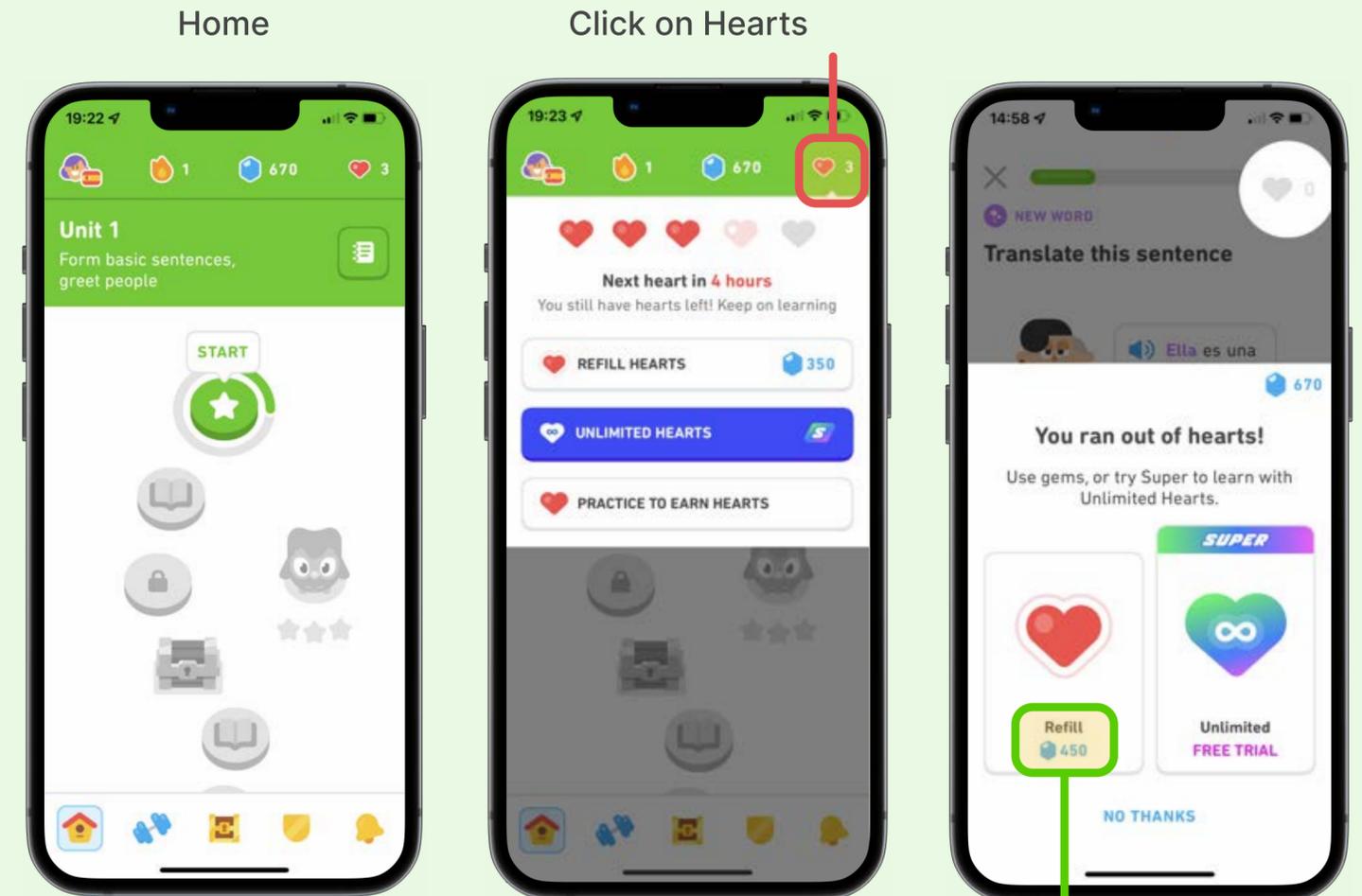
- Most participants discontinue lesson because the pop-up message only provides 2 options (buy premium and purchase hearts) while a free 3rd option is not available until user specifically looks for it

Flexibility & Efficiency of Use

Severity

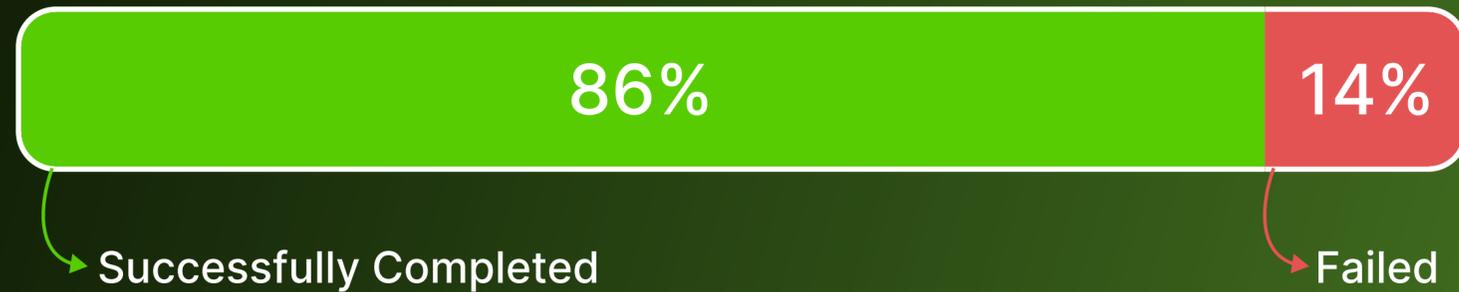
1

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Refill hearts in popup during a lesson

Success Rate



Error Rate

33%

Recommendations

- Show the 3rd option in the popup screen once a user runs out of lives



“Usually I quit the lesson and exit when I’m out of lives ”

05.

Post Task Question Analysis

Post Test Questions:

1. What features do you like the most on Duolingo and why?
2. What is something you find not easy to use on Duolingo during the test or in the past? How did you engage with it?
3. Do you have anything else that you'd like to share with us?

SUS Questions:

1. I think that I would like to use this app frequently.
2. I found the app unnecessarily complex.
3. I thought the app was easy to use.
4. I think that I would need the support of a technical person to be able to use this app.
5. I found the various functions in this app were well integrated.
6. I thought there was too much inconsistency in this app.
7. I would imagine that most people would learn to use this app very quickly.
8. I found the app very cumbersome to use.
9. I felt very confident using the app.
10. I needed to learn a lot of things before I could get going with this app.

POST TASK QUESTION ANALYSIS

We wanted to measure..

We found out that..



The usability of Duolingo language learning application.



The System Usability Scale (SUS) score, which can help us gather quantitative data that is objective and measurable.



The Qualitative data which can help us gather expressive information and feedback such as user motivations, feelings and behaviours.

POST TASK QUESTION ANALYSIS

duolingo

We wanted to measure..

We found out that..



Most users found the Duolingo application usable and delightful.



The visual design of the app is pleasing and it's features are motivating.



While the regular features of the app are smooth, the less used features are not easy to find and use.



The app seems to have some inconsistencies in lesson structure and content organisation.

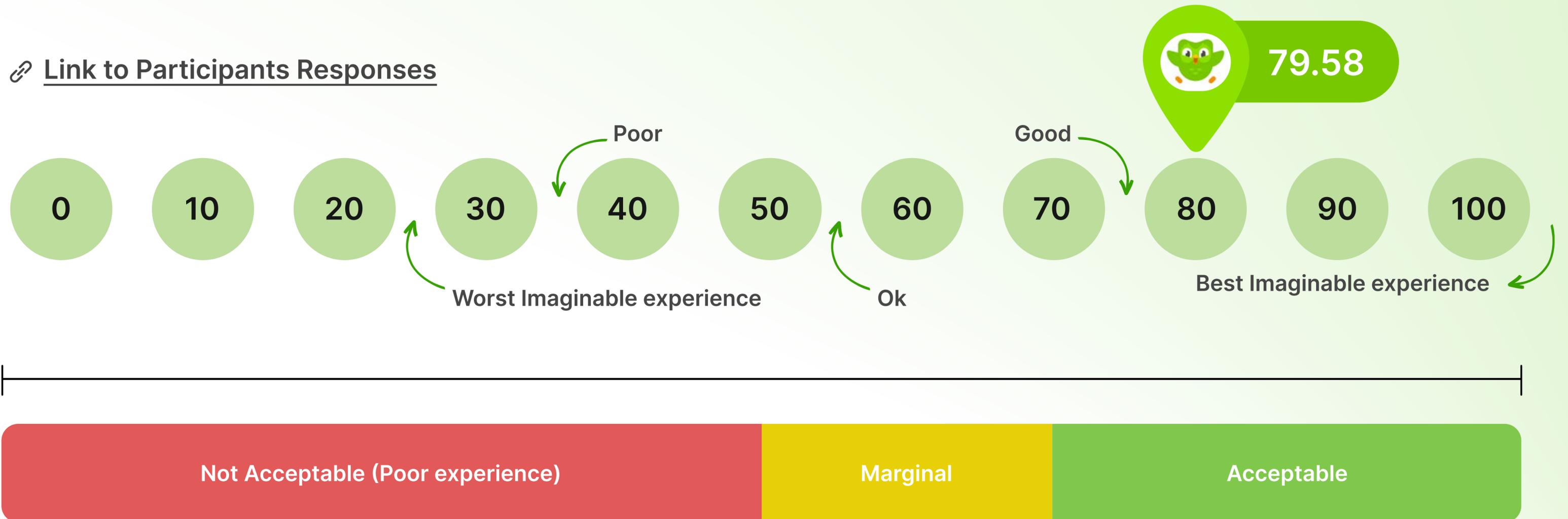


Users seem to be unaware of some useful features.

SUS | System Usability Scale

A technique used to measure the overall performance of an application with a **set of 10 questions regarding the functionality and overall experience**. Through this technique we were able to analyze the performance of the app using this standard technique. The score is as below.

[Link to Participants Responses](#)



06.

Key Insights and Recommendations

Takeaway Themes and Recommendations

Information Architecture

Consistency

Effectiveness of lessons

duolingo

1. The information in the app is currently uncategorized making it difficult for the user to locate the options that they are looking for.
2. The app also contains pages that have redundant information. And similar categories scattered across pages.

Recommendation

1. The information needs to be categorised better so users can search for things more intuitively and thereby optimizing the app's real estate.
2. Introducing a search option in pages that contain a range of information is useful.

Takeaway Themes and Recommendations

Information Architecture

Consistency

Effectiveness of lessons

duolingo

1. The icon placement across different language courses are not consistent which leads the users to assume that different languages may have different options.
2. In some cases, the icons and their functions are not intuitive to users.
3. The information in 'Help' pages do not match with the updated version of the application.

Recommendation

1. Using more universal icons or labelling the icons will be helpful to users
2. Maintaining consistent placement for icons across languages will improve user trust

Takeaway Themes and Recommendations

Information Architecture

Consistency

Effectiveness of lessons

duolingo

Although the lesson experience is wonderful, the learnings may not be helpful to users in a practical setting. Some users expressed that there is an inconsistency in the difficulty level of lessons

Recommendation

Introducing more native touch to the lessons would help the users. This could be in the form of audio or lesson structures (scenarios). It's worth considering this option to keep up with trends in the language learning space and competitors' features.

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Thank You!