Usability Testing Report Duolingo Mobile Application

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Introduction

Duolingo is a mobile language-learning application designed to help users learn new languages through interactive exercises and gamified learning features. The platform offers short lessons that include vocabulary, listening, speaking, and translation exercises. Duolingo is widely used by beginner learners and students. It provides a structured learning path and immediate feedback during lessons.

The purpose of this usability test was to evaluate how easily novice users can navigate the Duolingo mobile application and complete basic tasks associated with learning a language.

During this evaluation, two participants completed a series of common tasks within the Duolingo application while their interactions were observed. Data collected during the test included task completion success, time required to complete tasks, observed errors, and overall user impressions. The evaluation focuses on three key usability factors: learnability, errors, and satisfaction.

Methodology

Sessions

Two usability testing sessions were conducted using the Duolingo mobile app on a smartphone. Each session lasted approximately 25–30 minutes. At the beginning of each session, the participant was told about the purpose of the usability test and was told that the evaluation focused on the app rather than their performance. Participants were encouraged to think out loud while completing each task so that their reasoning and decision-making process could be observed.

During the session, the participant was asked to complete several tasks. Observations were recorded using an observation sheet, including time to complete tasks, navigation choices, and any errors that occurred. After completing the tasks, participants answered a short questionnaire about their experience using the application.

Participants

Two participants were recruited for the usability test. Both participants were familiar with using smartphones but had little prior experience using the Duolingo app.

Participant	Age Group	Experience with Language Apps	Smartphone Experience
Participant 1	20, College student	None	Frequent smartphone user

Participant 2	57, Adult Learner	Minimal	Moderate smartphone user

Evaluation Tasks

Participants were asked to complete the following three tasks within the Duolingo application.

Task 1: Create a new Duolingo account.

Task 2: Select a language to learn and begin the first lesson.

Task 3: Locate and change a setting within the application.

Results

Task Completion Success Rate

Both participants were able to successfully complete the assigned tasks.

Participant	Task 1	Task 2	Task 3
Participant 1	✓	✓	✓
Participant 2	✓	✓	✓

Completion Rate: 100%

Although both participants completed the tasks successfully, minor hesitation occurred while locating settings within the application.

Learnability

Learnability refers to how quickly new users are able to learn how to use the app and complete tasks. During the usability test, the amount of time participants required to complete each task was recorded.

Task	Participant 1	Participant 2	Average Time
Task 1	4 min 45 sec	5 min 10 sec	5 minutes
Task 2	3 seconds	5 seconds	4 seconds
Task 3	1 min 35 sec	1 min 50 sec	1 min 40 sec

Task 1: Create an Account and Begin Setup

The first task took the longest to complete because it required participants to go through the initial onboarding process. During this stage, users were asked to create an account, select a language to learn, and review introductory pre tests to determine their language learning level. This process took approximately five minutes for both participants. Although this task required

more time, the process appeared structured and guided, which helped participants move through the setup without needing external assistance.

Task 2: Select a Language to Learn

The second task required very little time to complete because it was part of the onboarding process already initiated during the first task. After beginning the setup process, participants were immediately prompted to select the language they wanted to learn. Because the language selection screen appeared automatically during onboarding, participants were able to complete this task within approximately two to five seconds.

Task 3: Locate and Adjust a Setting

The third task required participants to locate the settings menu and adjust an application setting, turning off the sound effects. This task took longer than the previous task because users needed to explore the menu to locate the appropriate settings option. Participants initially examined the leaderboard and home screen areas before locating the correct settings menu. Despite this short delay, both participants were able to successfully locate the settings and complete the task.

Overall, the Duolingo application demonstrated strong learnability. While the onboarding process required additional time during the initial setup, the guided interface helped users understand how to navigate the application and complete tasks successfully.

Errors

Errors refer to mistakes made by participants while attempting to complete the tasks.

Task	Participant 1	Participant 2	Total Errors
Task 1	0	1	1
Task 2	0	1	1
Task 3	1	1	2

Task 1: Create an Account

Participant 2 initially hesitated during the account creation process and selected the “Sign In” option rather than “Create Account.” This error occurred because the two options were presented close together on the screen despite the visual color difference. After reviewing the screen again, the participant corrected the selection and successfully created a new account.

Task 2: Begin the First Lesson

During the second task, Participant 2 initially tapped the “quests” icon instead of selecting the “home” icon with the lesson. This occurred because at first glance, it is not obvious where the lesson is located, or what each icon at the bottom of the screen means. After briefly exploring the screen, the participant recognized the lesson path was under the “home” icon and successfully began the first lesson.

Task 3: Adjust a Setting

Both participants made minor navigation errors while attempting to locate the application settings to adjust the sound effect setting. Participant 1 initially selected the leaderboard icon when searching for the settings menu, while Participant 2 attempted to access settings through the lesson icon. These errors suggest that the location of settings within the application may not be immediately clear to first-time users (located by clicking the 3 dots icon, profile, then gear icon).

Despite these minor navigation errors, both participants were able to quickly recover and complete the task without assistance. Overall, the errors observed were non-critical, meaning they did not prevent participants from successfully completing the tasks.

Satisfaction

After completing the tasks, participants were asked to rate their satisfaction with the application.

Participants reported positive experiences with the Duolingo app. The visual design was described as engaging and easy to understand. Both participants appreciated the animations, interactive exercises and immediate feedback provided during lessons.

Participants also noted that the gamified design elements, such as rewards and progress indicators, helped to keep them motivated during the learning process.

However, Participant 2 noted that the number of icons and notifications on the home screen could feel slightly overwhelming after using the app for a while.

Usability Scores

The usability of the Duolingo application was evaluated across three key usability dimensions.

Usability Category	Score (out of 20)	Explanation
Learnability	17 / 20	The interface is intuitive and easy to learn, allowing users to quickly begin lessons.
Errors	15 / 20	Minor navigation errors occurred when users attempted to locate certain settings.
Satisfaction	18 / 20	Participants reported enjoying the design and learning experience provided by the app.

Overall usability score: **50 / 60**

User Experience Observations

Participants described the application as engaging and visually appealing. The colorful interface and animated characters helped make the experience feel approachable and less intimidating for beginner learners.

One participant noted that the application felt similar to a game rather than a traditional learning platform, which increased motivation to continue completing lessons. Another participant commented that the immediate feedback provided during exercises helped reinforce correct answers and clarify mistakes.

Despite these positive impressions, both participants suggested that clearer labeling of navigation icons could improve usability for first-time users.

Recommendations

Based on observations from the usability testing sessions, several improvements could enhance the overall usability of the Duolingo app.

Recommendation	Justification	Severity
Add labels to navigation icons	Some icons are unclear to new users, which caused hesitation when locating features.	Medium
Provide a brief onboarding tutorial	A short tutorial could help explain key features and navigation elements to new users.	Medium
Reduce notification interruptions	Frequent reward animations and notifications can interrupt the learning experience.	Low

Implementing these changes could improve the overall usability and reduce confusion for first-time users.

Conclusion

The usability evaluation of the Duolingo mobile application suggests that the platform provides an accessible and engaging environment for beginner language learners. Participants were able to successfully complete all assigned tasks, and overall satisfaction with the application was high. The application's interactive design, clear learning path, and immediate feedback contribute to a positive user experience. However, minor usability improvements related to navigation clarity and notification management could further enhance the user experience.