IMA2 - Usability Testing Report

The University of South Florida – College of Education

EME6208 Interactive Media

Dzindzi Asamoah-Wade

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Introduction

Duolingo is a popular language acquisition application that offers a user interactive and game-based learning experiences. The app includes over 40 languages, including Spanish, Japanese, French and many more. The program is designed to be accessible for people of all ages and abilities by incorporating small, easily digestible lessons, the ability to track streaks or consistency, and rewards to incentivize staying active in one's learning and interaction with the app. The app includes activities like listening, speaking and reading comprehension. Duolingo also offers the ability to customize the user's experience with preference settings.

Evaluation / Tasks

A usability test was performed on two participants to analyze their ability to access and use the program. Both participants were given 3 specific tasks as I kept track of how much time each took and other details about their use such as the number of clicks it took to complete the task, any errors encountered and feedback (negative or positive) while completing the tasks. Task number 1 was to complete all necessary steps to download the app from the app store and create a new account. Task number 2 was to find and select the language the participant wanted to learn and add it to their profile. Task number 3 was to locate profile settings and turn on daily practice reminders.

Methodology

Participants for this study were selected by means of accessibility and greatest degree of variance in profile. Participants are of different backgrounds and experiences with technology and languages other than English. Both sessions were completed in one sitting and neither participant had a time limit. A script was used to welcome the participants and explain to them how the session would be run. During each session, participants were asked to complete 3 tasks and were observed so that the following could be recorded: start time, end time, number of clicks, end time and any commentary from participants about their experiences. Both participants were encouraged to give live verbal feedback so that I may record everything about their participation. Once each participant was finished, they took a questionnaire about the usability of the app and their overall satisfaction.

Participant #1 is a 36-year-old white male with a background in elementary school education. He switched careers to become a pilot and has been in aviation for the last 5 years. He has a bachelor's degree in early childhood education and holds many aviation certifications including flight instructor. Participant #1 is familiar with technology but is averse to incorporating it in his daily life "unnecessarily" and would prefer analog

everything. He was assessed on Saturday May 31st, 2025. He had never used an app for language acquisition prior to this session. While using the app, no errors were observed but he moved very slowly and reluctantly through the task. Most of his interaction with the app seemed arduous and not enjoyable. He felt the app was easy to navigate but just did not see the point in it and equated its use to an unhealthy increase in screen time when other non-digital language acquisition options are available.

Participant #2 is a 55-year-old African American female with a background in education. After 10 years in education, she transitioned to law and has been working as an attorney for the last 20 years. Participant #2 is pretty comfortable with technology but has poor eyesight and medical issues that make screens, specifically smaller ones like a cell phone, difficult to work with. She was assessed on Sunday June 1st, 2025. She had never used the app before but was a foreign language teacher when she worked in education, so the concept of the app really stuck a chord with her and made her very interested and amenable to the tasks that were given to her.

Results – Learnability

Learnability for each participant was measured in the number of clicks it took them to complete each task. This included mishaps that required additional clicks to "go back" but did not include clicks to type out one's name, email or password therefore, there is not a direct connection between number of clicks and errors. Additionally, clicks varied for setting daily practice reminders as there were many preferences and reminder cadences to choose from, which was purely based on personal choice.

	P1	P2	Total	Average
Task 1	8	10	18	9
Task 2	4	4	4	4
Task 3	3	6	9	4.5

Results – Errors

	P1	P2	Total	Average
Task 1	0	1	1	.5
Task 2	1	1	2	1
Task 3	0	0	0	0

Results – Satisfaction

User satisfaction was based on the results from a questionnaire that both participants completed. The possible answers to each question ranged from "strongly

disagree" to "strongly agree". A possible answer of "neutral" sat in the middle of the scale. Numerical values for each answer were assigned ranging from -2 (strongly disagree) to +2 (strongly agree), with the answer of "neutral" receiving 0 points. These numerical assignments were given so that results could be looked at as absolute or magnitude values. The purpose of this was to be able to determine "overall negative" or "overall positive" feedback from participants.

	P1	P2	Total	Average
Question 1	2	2	4	2
Question 2	2	2	4	2
Question 3	2	2	4	2
Question 4	2	2	4	2
Question 5	2	1	3	1.5
Question 6	2	1	3	1.5
Question 7	1	1	2	1
Question 8	2	2	4	2
Question 9	2	2	4	2
Question 10	-1	1	0	0
Question 11	0	1	1	.5
Question 12	0	0	0	0
Question 13	2	2	4	2
Question 14	0	1	1	.5
Question 15	0	0	0	0
Question 16	1	1	2	1
Question 17	0	1	1	.5
Question 18	2	2	4	2
Question 19	1	1	2	1
Question 20	-1	1	0	0

Discussion – Impressions, Ratings and Recommendations

My impressions of this usability study were pretty aligned with what I thought would happen going into it. I think it was good to have my participants on different parts of the spectrum in terms of age, ability and affinity towards technology. Participant 1 made his overall aversion to "unnecessary" technology very apparent before beginning the study and said that he prefers not digital forms of almost everything such as paper checks, no digital banking, minimal work productivity on his phone (limited to email and no actual work apps), and does not feel comfortable sharing any personal information online. He was able to complete all tasks efficiently but at every turn shared how he thought a book or reading a physical paper is more stimulating and effective. I don't think even a user-friendly app like Duolingo can capture a user this averse to technology long term.

My impressions of Participant 2 were that despite her physical limitations such as poor eyesight and back pain that kept her from sitting comfortably and detracted from her focus, she genuinely enjoyed the concept of the app and was interested in participating. Though technology is difficult for her to interact with at time due to physical limitations, she enjoys its productivity and innovation very much. It is likely that while she may not be able to spend long periods of time on the app or see the words clearly without enlarging them, she would spend time after the study using Duolingo.

Surprisingly, none of the ratings reflected an overall negative sentiment or experience with the tasks or overall satisfaction. In fact, both participants made it clear that any dissatisfaction with the experience had everything to do with overall aversion to technology as in the case of participant 1, and then overall discomfort with looking at small print on screens and body positioning while participating as in the case of participant 2. The variation in ratings for learnability mostly regarded preferences. For example, the screen where users selected profile settings and daily practice reminders, Participant 1 selected the minimum and Participant 2 selected 4 options.

While neither participant was greatly satisfied or greatly dissatisfied, both expresses minor frustration with how "busy" some of the pages were. The busyness they were referring to was the ads that were present on some pages and how some of the parts of screen seemed like buttons and clickable options that were not necessary. Ads are a way for applications to generate money, but I would recommend trying to cut down on the extraneous buttons and items that show on some of the screens if possible. These are distracting and seem to make users feel like they are money pawns instead of valued users.

Conclusion

On average the participants were satisfied with the Duolingo experience but only one seemed keen to return to the app. Errors made while completing the tasks were low and I think this has a lot to do with the fact that things like account creation and signing into technology is so commonplace; it might be a different app but it is the same process. The use of absolute values for ratings on the questionnaire really helped me conceptualize overall user feedback for things and I was surprised to look back and see that nothing averaged to a negative sentiment, though many averaged to neutral. It would be interesting to do this same study with more participants of more varying ages, backgrounds, occupations and affinities to technology.

User Questionnaire

1. The account creation process on Duolingo was easy to follow.

    ☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

2. I was able to create my Duolingo account without any technical issues.

    ☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

3. The steps required to create an account were clearly explained.

    ☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

4. The amount of information required to create an account was reasonable.

    ☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

5. I felt confident while creating my Duolingo account.

    ☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

6. It was easy to choose my language and learning goals during setup.

    ☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

7. The design of the account creation page was visually appealing.

    ☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

8. I received clear feedback (e.g., success messages or error messages) during the signup process.

    ☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

9. I was able to sign up using my preferred method (email, Google, Apple, Facebook, etc.).

    ☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

10. I felt secure entering my information while creating a Duolingo account.

    ☐ Strongly Disagree ☐ Disagree ☐ Neutral ☐ Agree ☐ Strongly Agree

11. I am satisfied with my overall experience using Duolingo so far.

☐ Strongly Disagree   ☐ Disagree   ☐ Neutral   ☐ Agree   ☐ Strongly Agree

12. So far Duolingo has met my expectations as a language learning app.

☐ Strongly Disagree   ☐ Disagree   ☐ Neutral   ☐ Agree   ☐ Strongly Agree

13. The app feels intuitive and easy to use.

☐ Strongly Disagree   ☐ Disagree   ☐ Neutral   ☐ Agree   ☐ Strongly Agree

14. I enjoy the design and layout of the Duolingo interface.

☐ Strongly Disagree   ☐ Disagree   ☐ Neutral   ☐ Agree   ☐ Strongly Agree

15. I feel motivated to continue learning with Duolingo.

☐ Strongly Disagree   ☐ Disagree   ☐ Neutral   ☐ Agree   ☐ Strongly Agree

16. I would recommend Duolingo to others interested in learning a language.

☐ Strongly Disagree   ☐ Disagree   ☐ Neutral   ☐ Agree   ☐ Strongly Agree

17. I feel that Duolingo supports my application preference needs effectively.

☐ Strongly Disagree   ☐ Disagree   ☐ Neutral   ☐ Agree   ☐ Strongly Agree

18. I am satisfied with the speed and performance of the app.

☐ Strongly Disagree   ☐ Disagree   ☐ Neutral   ☐ Agree   ☐ Strongly Agree

19. I feel that Duolingo values user preference and input regarding my learning experience.

☐ Strongly Disagree   ☐ Disagree   ☐ Neutral   ☐ Agree   ☐ Strongly Agree

20. I am likely to continue using Duolingo regularly.

☐ Strongly Disagree   ☐ Disagree   ☐ Neutral   ☐ Agree   ☐ Strongly Agree