

**HO CHI MINH CITY NATIONAL UNIVERSITY
UNIVERSITY OF NATURAL SCIENCES
FACULTY OF INFORMATION TECHNOLOGY**



PA4
SUMMATIVE USER STUDY

Subject: User Interface Design

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A. INTRODUCTION

1. Group information

GROUP 14			
No.	Student ID	Fullname	Email
1	21127234	Nguyễn Lê Anh Chi	nlachi21@clc.fitus.edu.vn
2	21127235	Nguyễn Xuân Quỳnh Chi	nxqchi21@clc.fitus.edu.vn
3	21127495	Lê Ngô Song Cát	linscat21@clc.fitus.edu.vn
4	21127659	Bùi Ngọc Kiều Nhi	bnknhhi21@clc.fitus.edu.vn

2. Assign task

No.	Responsibility	Task	Level of completion
1	Nguyễn Lê Anh Chi	4	100%
2	Nguyễn Xuân Quỳnh Chi	3	100%
3	Lê Ngô Song Cát	2	100%
4	Bùi Ngọc Kiều Nhi	1	100%

- Demo video: [\[21KTPM3 - Group14 - UI/UX\] PA4](#)
- Link Figma Prototype: [Hi-Fi Prototype](#)

B. SUMMATIVE USER STUDY

1. Introduction

1.1. Purpose of the Report:

- The purpose of this report is to document the planning, execution, and outcomes of a summative user study conducted to evaluate the effectiveness and usability of our hi-fi prototype.
- This report will detail the study setup, participant tasks, evaluation measures, and the insights gathered, providing a comprehensive analysis of the prototype's strengths and areas for improvement.

1.2. Overview of the User Study:

- Purpose: Evaluate the usability and effectiveness of the hi-fi prototype.
- Participants: 2-3 participants were invited to test the prototype.
- Study design:
 - Participants completed specific tasks using the prototype.
 - Feedback was gathered through interviews and questionnaires.
 - Task completion times were measured and compared to current practices.
- Planning:
 - Detailed setups and study designs.
 - Tasks assigned to each team member.
 - Evaluation measures.
- Data collection:
 - Videos recording of all testing sessions.
 - Collected feedback and relevant data for analysis.

2. Study Planning

2.1. Study Setup:

- Devices used: Mobile phone, Laptop.
- Tools used:
 - **Maze:** A testing platform that supports prototype testing, and the results will be recorded and analyzed automatically.
 - **Google Meet:** We use this platform to record the testing sessions with the invited participants and their interviews after the sessions.

2.2. Questionnaires and Study Designs:

1. Ask for some basic background information (Optional)
 - a. User Information: Name, age, occupation
 - b. Experience with TikTok
 - c. Learning habits
2. Introduce the main purpose of the app to the participants.
3. Have the user perform the prototype tests created by the team (1 for user, 1 for admin).

4. Provide some guidance if the user encounters any issues for too long during the test.
5. Record the difficulties the user experiences.
6. Check if the user remembers the words they added or scrolled through.
7. Post-usage questions:

a. User

- + Do you find the colors used in the app hard to see or distracting?
- + How do you rate the interactions with the app?
- + Did you find any parts of the app confusing or inconvenient?
- + Do you think the sequence of a flashcard: video appearance -> explanation of the new word in English -> explanation of the new word in Vietnamese is reasonable?
- + Does this app align with your learning method?
- + Does learning vocabulary through videos help you remember the meaning of words more easily?
- + Does the use of videos make the learning process more engaging?
- + Do the videos help you understand the contextual meaning of the words?
- + If you use this app for long-term English learning, do you feel confident in using the learned words correctly in context?

b. Admin

- + Do you find the colors used in the app hard to see or distracting?
- + How do you rate the interactions with the app?
- + Does this interface make you feel confused?
- + Is there anything inconvenient about the current input method?
- + Do you think this interface makes admin management easier?

2.3. Participant Recruitment:

- Our target users are teenagers who have experienced using TikTok or any short-video platform and they actually received new information through these platforms so this was one of our top criteria in choosing the suitable participants.
- We were able to invite 2 participants:
 - One has technical background but not really into flashcard – This choice is to see if the current design makes sense to a person who has knowledge about technology and see if it was efficient to them.
 - One does not have technical background but is interested in flashcard. - This choice is to see if a common user who is not familiar with technology would struggle to interact with this interface or meet any difficulties in understanding how the application works.

3. User Study Execution

3.1. Task Assignments:

- Create Prototype Test using Maze: Anh Chi, Song Cát.
- Give instruction, observe and conduct interviews: Anh Chi, Quỳnh Chi.
- Analyze the result: Kiều Nhi.

3.2. Conducting the Study:

1. We invited the participants to the Google Meet room.
2. Start recording.
3. After chatting a little bit by asking their background information to let them loosen up, we provided them with the link to do the prototype test on Maze.
4. We observed the activities of the participants while they were doing the test and provided some information if they asked about anything then noted it down.
5. After they finished the test, we asked them to evaluate their experience with our prototype and asked the questions we have prepared beforehand, which were specified in part 2.2.
6. We asked them if they still remembered the words on the flashcards in the demo along with their meanings.
7. We noted down all their answers and left them sometimes to recall if they have any other feedback for us and where we can improve more.
8. Stop recording.
9. Testing session ended.

4. Data Analysis and Findings

4.1. Feedback and Insights:

- **For the user side:**
 - Both the testing participants find the concept of a 3-sided flashcard combined with short videos highly engaging and unique. They appreciated the dynamic approach to learning, as it added a new layer of context and interactivity compared to traditional flashcards.
 - The video content helped participants understand the pronunciation, contextual usage, and real-life application of the words, making the learning process feel more natural and immersive.
 - The video browsing mimic TikTok or Youtube reels browsing experience help them feel familiar and more motivated to use the app as it does not feel like “studying”.
 - Both testers expressed excitement about the potential of this approach, highlighting that it made studying feel less monotonous and more like scrolling through social media, which they already do daily.
 - About the visual experience, they did meet any major problems with buttons or main palette of the app. One of the participant expressed that he enjoyed how less of the texts on screen and let the icon do their jobs.
- **For the admin side:**
 - Both the participant were able to finish the tasks given in the test but the participant with no prior knowledge of technology struggles a bit to get used to the interface.
 - One expressed that the main color used is a bit light for him to see clearly.
 - The interviewer has to give some instructions for them to understand some fields. After being explained to, they were able to carried out the tasks flawlessly by themselves.

4.2. Key Findings:

- **High Engagement with Video Content:** Participants found the short video format appealing and mentioned that it held their attention better than standard text-based flashcards. The visual and auditory components helped reinforce word meanings and contextual usage effectively.
- **Improved Retention through Contextual Learning:** Users noted that seeing words used in real-world contexts, such as in conversations or sentences within videos, significantly enhanced their ability to remember and recall vocabulary.
- **Ease of Use and Navigation:** Testers reported that the interface was intuitive, with smooth navigation between flashcards, videos, and definitions. The swipe-based interactions felt familiar and were easy to adapt to, reminiscent of social media platforms like TikTok.
- **Positive Reaction to Interactive Features:** The ability to interact with the flashcard, pause videos, and explore additional meanings directly from the video content was highly praised. Participants appreciated the interactivity, which made the learning experience more engaging.
- **Increased Motivation to Learn:** Participants felt more motivated to use the app regularly due to its playful and modern approach, combining education with entertainment in a seamless way. The innovative use of multimedia content was a key factor in keeping users engaged and excited about learning.
- **Areas for Improvement:** Some participants suggested incorporating more customization options, such as adjusting video playback speed or selecting specific video topics that match their interests. Additionally, there was feedback on enhancing the clarity of some UI elements, like icons and buttons, to make the interactions even more user-friendly.

→ **Conclusion:** The two main problems that group wanted to solve by using this approach were ‘Lack of contextual usage’ and ‘Boring & Non-interactive Flashcard’. Having analyzed the test results and participants’ feedback, it can be seen that these two problems were resolved basically to some point, and they are excited about the future of the app. However, there are still minor areas that can be improved for better user experience.