SE3050 – User Experience Engineering   **Semester 2, 2024**

Lab Practical 04 – Plan and Conduct User Research

Introduction

This user research plan is designed to evaluate the usability and user experience of the HungerBuster mobile application, a platform designed to connect food donors with people in need, such as low-income families, elderly individuals, and single parents in Sri Lanka.

The primary goal of this research is to gain insights into the needs, behaviors, and pain points of our target users to refine the application's design, improve its usability, and ensure it meets the needs of its diverse user base. By conducting this research, we hope to uncover specific areas of improvement and validate our design choices.

The results will be used to guide future development and enhance the overall user experience of the app.

Test Objectives

1. The objectives of this research are:
2. **Understand User Needs and Pain Points**: Identify the motivations for using the HungerBuster app, and the challenges users face during interactions.
3. **Evaluate Usability and Accessibility**: Assess the usability of the app's interface, focusing on accessibility for less tech-savvy users, such as elderly individuals and users from low-income backgrounds.
4. **Gather Feedback on Key Features**: Obtain user feedback on specific features, including browsing donations, making requests, and managing profiles.
5. **Identify Opportunities for Improvement**: Uncover areas where the app's design, functionality, and interface can be improved to enhance user satisfaction.

Methodology

A mixed-method research approach will be used, incorporating both qualitative and quantitative data collection. The research will consist of:

1. **Interviews**: One-on-one semi-structured interviews will be conducted to gather in-depth insights into user experiences, pain points, and suggestions for improvement.
2. **Video Recordings**: Participants will be recorded while interacting with the app, capturing their behavior and challenges encountered in real time.
3. **Questionnaires**: A structured questionnaire will be distributed to gather quantitative data on user satisfaction, usability, and overall experience with the app.

Participants: Four participants have been selected based on the personas developed for HungerBuster. Each participant represents a different target demographic:

1. A low-income single mother.
2. A school principal.
3. A community volunteer.
4. A local food donor/shop owner.

Location: The user research sessions will be conducted remotely via video calls to ensure participant convenience and accessibility.

Interviewing

Interview Process

The interviews will be conducted remotely via video conferencing platforms and will last approximately 20 minutes. The focus will be on understanding the needs, expectations, and preferences of the users before the HungerBuster app is fully developed. This will allow the team to gather valuable insights that can guide the app's design and functionality.

The discussion will explore:

- User expectations for a food donation/request platform.
- Key challenges participants face in accessing or donating food.
- Features they believe would be essential for the app.
- Pain points and limitations in current food donation systems (if any).
- Suggestions for improving usability and accessibility in a new app.

Interview Script

Introduction:

"Thank you for participating in this research. We are still in the early stages of developing the HungerBuster app, and we'd love to hear your thoughts and expectations to help us shape the design. This interview will take approximately 5 –8 minuites. Please feel free to share your honest feedback throughout this interview."

Key Questions:

- Can you describe your current process for donating food? What challenges do you face?
- If you were to use an app like HungerBuster, what would be the most important features for you?
- How do you typically interact with technology? Do you have any concerns about using a mobile app for food donations?
- What features or functionalities would make the process of requesting or donating food easier for you?
- Are there any existing platforms or services you've used for food donations or requests? What do you like or dislike about them?
- What are your expectations for this app in terms of ease of use and accessibility?
- What suggestions do you have that could help us ensure the app meets the needs of people like yourself?

Video Recording

Since the HungerBuster app is still under development, video recordings will capture participants' responses as they envision interacting with the app, rather than directly performing tasks. The recordings will focus on understanding how participants expect to use the app and the challenges they anticipate.

Video Plan

1. **Preparation**: Provide participants with a mockup or description of the HungerBuster app's key features, such as browsing donations, making food requests, and managing profiles.
2. **Recording Setup**: Use video conferencing software to record the participant's facial expressions and reactions as they are introduced to the app concept and the described tasks.
3. **Tasks**:
   - **Task 1**: Imagine you've just logged into the HungerBuster app. How would you expect to find and browse available food donations? What features would make this process easier for you?
   - **Task 3**: Suppose you need to update your contact information or manage your profile. How would you expect to do this? What features would make this simple and intuitive for you?
   - **Encouraging Feedback**: Ask participants to describe what they would be doing and why as they walk through the hypothetical tasks. Encourage them to share any confusion, challenges, or features they would expect to see in an app like HungerBuster.

Questionnaire

A structured questionnaire will be used to collect quantitative data on user experience. It will include Likert-scale questions, multiple-choice questions, and open-ended questions.

Construction

1. **Sample Questions**:
   - On a scale of 1 to 5, how easy do you think it would be to find and request food donations through a mobile app?
   - What features do you think you would use the most in an app designed for food donations and requests?
   - What do you expect to be the most useful feature of a food donation app like HungerBuster?
   - Are there any features or functionalities you anticipate finding confusing or difficult to use?
   - What concerns do you have about using a mobile app for donating or requesting food?
   - Do you have any suggestions for features that could improve the user experience?
   - Any additional comments or suggestions on how we can make the app more accessible or user-friendly?

2. **Distribution**: The questionnaire will be distributed via email with a link to an online survey platform (e.g., Google Forms). Participants will have one week to complete the questionnaire.

3. **Data Collection**: Responses will be automatically collected and stored in a secure database for analysis.

Link to the Questionnaire: *https://forms.gle/N1nGWCmE7PYZabsP9*

Participant Profiles

The participants for this research have been selected to match the user personas created for the HungerBuster app:

1. **Participant (IT21813702)** : Female, early 30s, owner of a local restaurant, uses the app to donate surplus food, familiar with basic smartphone functions.

   Link to Interview: [Interview with Amarasinghe V. D. it21813702](#)

User Research – Tasks/Scenarios: To gather insights on how participants expect to interact with the HungerBuster app, participants will be asked to imagine completing the following key tasks. Their responses will help shape the app's design and user flow, ensuring it aligns with their expectations and needs.

Task 1: Making a Food Donation

- Imagine you've just logged into the HungerBuster app. How would you expect to create a food donation?
- What kind of information would you suppose you would need to fill?
- What information would be important for you to see (e.g., location, quantity, expiration date)?
- Are there any common food categories that would make filling in food details faster?

Task 2: Updating Profile Information

Consider you need to update your contact information or manage your user profile. How would you expect to do this?

- What kind of fields or options would you need access to?
- How easy or intuitive would you expect this process to be?

Plan for Data Analysis

Interviews:

- **Qualitative Data**: Transcripts of the interviews will be coded to identify common themes and patterns related to user needs, pain points, and suggestions.

- **Analysis Plan**: Thematic analysis will be used to categorize user feedback into usability issues, feature requests, and overall user satisfaction.

Video Recordings:

- **Qualitative Data**: Observations from video recordings will be analyzed to identify usability challenges, navigation patterns, and areas of confusion.

- **Analysis Plan**: Video segments will be categorized based on specific user interactions and tasks, highlighting successful completions and errors.

Questionnaires:

- **Quantitative Data**: Data from Likert-scale questions will be analyzed using descriptive statistics to summarize user satisfaction and usability scores.
- **Analysis Plan**: Open-ended responses will be reviewed for additional insights, and cross-analysis with interview findings will be conducted to identify consistent trends.