



**BSc (Hons) in Information Technology**  
**Media – Year 3, Semester 2**  
Lab sheet 04

**SE3050 – User Experience Engineering**

**Semester 2, 2024**

## Lab Practical 04 – Plan and Conduct User Research

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### 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 Hunger Buster. Each participant represents a different target demographic:

1. A low-income single mother.
2. A school principal.
3. A community volunteer.
4. A Health Expert (it21800900)

**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*

it21800900(Lakhan s n) to Health Expert

### **Interviewer:**

Good [morning/afternoon], Dr. Wijesinghe. Thank you for taking the time to join us today. Given your background in public health and nutrition, I'm eager to discuss how your expertise can contribute to the "Community Food Sharing Platform."

- **Can you tell us about your experience in food safety and nutritional quality?**  
We're interested in understanding how your specialization has equipped you to ensure the safety and quality of food items in your current role.
- **What methodologies do you typically use for food assessment and safety checks?**  
This platform heavily relies on the accurate assessment of food donations. It would be valuable to learn about the processes and techniques you employ in your evaluations.
- **How do you approach problem-solving in your day-to-day work?**  
Your role likely presents complex challenges, especially regarding food safety. Can you share an example of how you've tackled a difficult issue?
- **The "Community Food Sharing Platform" seeks to improve the nutritional quality of food donations. How do you think your expertise could help achieve this goal?**  
Your input will be crucial in ensuring the platform meets its objectives. What strategies would you recommend for maintaining or improving the nutritional quality of donated food?
- **We noticed that you have strong skills in data analysis. How do you leverage data to enhance food safety and public health initiatives?**  
Data is becoming increasingly vital in public health. Could you provide insight into how you use data analysis to drive decision-making in your work?
- **This role also requires public speaking and engaging with the community. How do you feel about using your public speaking skills to raise awareness on food safety?**  
Public outreach is a significant part of this platform's mission. How do you plan to utilize your communication skills to engage with the broader community?

- **Finally, can you discuss your goals within this platform and how you see yourself growing within this role?**

We'd love to understand what you aim to achieve if you were to join our team and how this aligns with your long-term career aspirations.

**Interviewer:**

Thank you, Dr. Wijesinghe, for your insightful responses. It's clear that your expertise and experience make you a strong candidate for this role. We'll be in touch soon regarding the next steps.

**Key Focus Areas:**

- **Expectations from the Platform:**  
The platform should provide accurate, up-to-date information for informed decision-making in food safety. Tools to streamline the verification process without compromising safety are essential.
- **Support for Research and Professional Growth:**  
The platform should offer reliable, organized data that can be used for research and continuous professional development. Recognition of contributions within the public health community is also important.
- **Necessary Features:**  
A dashboard for easy management and verification of food submissions is needed. It should include features to review images, estimate shelf life, and ensure compliance with food safety standards.
- **Challenges and Concerns:**  
The manual review of food submissions is time-consuming, especially with large volumes. Ensuring the accuracy of donor-provided information is crucial. A feedback mechanism would be valuable for understanding community perceptions.
- **Personal and Professional Impact:**  
Contributing to community health and safety is rewarding, but there is a strong sense of

responsibility to maintain high standards. Efficient verification processes and recognition of efforts are important.

- What suggestions do you have that could help us ensure the app meets the needs of people like yourself?

## Video Recording

Link to Interview: [interview of it21800900=](#)

## Questionnaire

Link to the Questionnaire: <https://forms.gle/N1nGWCmE7PYZabsP9>

## Participant Profiles

1. **Participant (Expert):** Male, early 30s, Studying, well known professional, less tech-savvy, uses the app occasionally to validate Food submissions

## 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.

## Personas

IT21800900 : Dr. Harsha Wijesinghe - The Public Health Expert

### USER PERSONA



**DR. HARSHA WIJESINGHE**

AGE : 24  
GENDER : MALE  
DEGREE : BSc in Public Health and Nutrition

#### ABOUT

Dr. Harsha Wijesinghe is a committed Public Health Nutritionist with specialty in food safety and nutritional quality. The “Community Food Sharing Platform” benefiting from Dr. Wijesinghe’s background in public health and years of experience in food assessment and safety, Dr. Wijesinghe is responsible for the safety check and quality of the food items received for donation, to ensure that they are safe for consumption by the target groups.

#### PERSONALITY

Analytical	<div><div></div><div></div><div></div><div></div><div></div></div>
Problem-Solving	<div><div></div><div></div><div></div><div></div><div></div></div>
Public Speaking	<div><div></div><div></div><div></div><div></div><div></div></div>
Adaptable	<div><div></div><div></div><div></div><div></div><div></div></div>

#### GOALS

- Utilize the system as a data analysis platform for further study and research.
- Gain recognition in the professional community, such as on LinkedIn, by earning digital certificates provided by the system.

#### SKILLS

Food Analyze	<div><div></div></div>
Researching	<div><div></div></div>
Computer proficiency	<div><div></div></div>

#### ACCEPTANCE CRITERIA

- Access to data analytics and reporting tools.
- Ability to generate and share comprehensive reports
- Ability to approve decline food submissions

### 1. Persona Overview:

- **Name:** Dr. Harsha Wijesinghe
- **Age:** 24
- **Gender:** Male
- **Location:** Colombo, Sri Lanka
- **Occupation:** Public Health Specialist and Nutrition Consultant
- **Education:** BSc in Public Health and Nutrition
- **Income Level:** High-income
- **Marital Status:** Married with two children

## **2. Background:**

Dr. Harsha Wijesinghe is a well-known public health expert based in Colombo, specializing in nutrition and community health for over 25 years. He is currently working with the Ministry of Health and collaborates with several NGOs to address food security and malnutrition issues in Sri Lanka. Dr. Harsha is passionate about leveraging technology to collect and analyze data on community health trends. He believes that platforms like HungerBuster can significantly improve community well-being by optimizing food distribution and addressing nutritional needs effectively.

## **3. Demographics:**

- **Age Group:** 45-55
- **Education Level:** Ph.D. in Public Health and Nutrition
- **Professional Status:** Senior Public Health Consultant
- **Family Status:** Married, two children

## **4. Psychographics:**

- **Interests:** Public health research, nutrition science, policy advocacy, data analysis
- **Values:** Evidence-based decision making, community welfare, integrity, education
- **Personality Traits:** Analytical, compassionate, strategic, proactive
- **Motivations:** Improve public health outcomes through better nutrition and policy reforms
- **Frustrations:** Lack of access to comprehensive data on community nutrition and food security

## **5. Goals and Needs:**

- **Goals:**
  - Use data to enhance community nutrition and reduce malnutrition rates.
  - Educate the public on the importance of balanced nutrition and food safety.
- **Needs:**
  - Access to valuable data for research and continuous learning.
  - data analytics tools for monitoring trends and developing strategies.
  - Making a tangible difference in public health by ensuring safe food distribution.



## **6. Pain Points:**

- **Time-Consuming Processes:** The manual review of food submissions can be time intensive. Difficulty in communicating/supporting nutritional guidelines to a diverse population.
- **Data Accuracy:** Concerns the reliability of user-provided data, such as food descriptions or images.
- **Lack of Immediate Feedback:** Uncertainty about how the community perceives his contributions without direct feedback mechanisms.

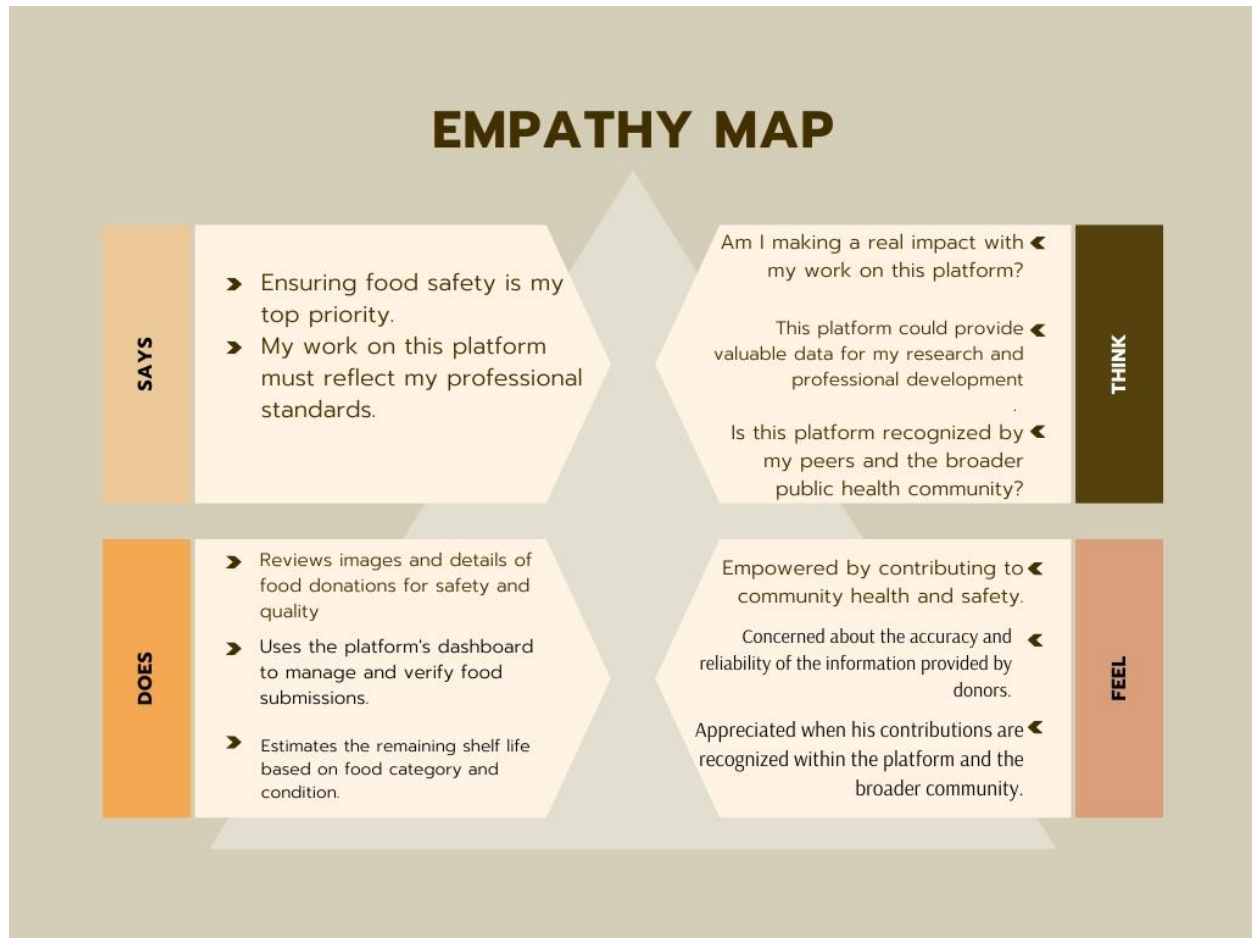
## **7. Technology Use:**

- **Devices:** Smartphone (iOS), Tablet, Laptop
- **Tech Savviness:** Medium - Proficient with data analysis software and digital tools for public health management
- **Preferred Platforms:** Data analytics software, research databases, professional networks

## **8. Scenario/Situation:**

**Scenario 1:** Dr. Harsha uses the HungerBuster app's analytics dashboard to review data on food donations and community health outcomes. He identifies outdated nutritional deficiencies from newly added data and rejected it for distribution.

**Scenario 2:** Dr. Harsha uses the HungerBuster app's analytics dashboard to collect important research data about foods, he downloads result from the application.



### 1. What Dr. Harsha Says:

- Ensuring **food safety is my top priority.**
- I **need accurate and up-to-date information to make informed decisions.**
- My **work on this platform must reflect my professional standards.**
- I **want to contribute to public health while gaining recognition for my expertise.**

### 2. What Dr. Harsha Thinks:

- Am I making a real impact with my work on this platform?
- How can I streamline the verification process without compromising safety?
- This platform could provide valuable data for my research and professional development.
- Is this platform recognized by my peers and the broader public health community?

- How do I balance my time between this volunteer work and my other professional responsibilities?

### **3. What Dr. Harsha Does:**

- Reviews images and details of food donations for safety and quality.
- Uses the platform's dashboard to manage and verify food submissions.
- Estimates the remaining shelf life based on food category and condition.
- Keeps up to date with the latest food safety standards and research.

### **4. What Dr. Harsha Feels:**

- **Empowered** by contributing to community health and safety.
- **Concerned** about the accuracy and reliability of the information provided by donors.
- **Proud** when his expertise helps ensure that safe, nutritious food reaches those in need.
- **Appreciated** when his contributions are recognized within the platform and the broader community.
- **Responsible** for maintaining high standards in food safety and public health.
- **Challenged** by the need to efficiently verify multiple food items while maintaining quality.

### **5. Pain Points:**

- **Time-Consuming Processes:** The manual review of food submissions can be time intensive.
- **Data Accuracy:** Concerns the reliability of user-provided data, such as food descriptions or images.
- **Lack of Immediate Feedback:** Uncertainty about how the community perceives his contributions without direct feedback mechanisms.

### **6. Gains:**

- **Professional Growth:** Access to valuable data for research and continuous learning.
- **Recognition:** Gaining professional recognition and building his reputation through the platform.

- **Impact:** Making a tangible difference in public health by ensuring safe food distribution.

## IT21800900 : Public Health Expert

