Usability Test Plan – Lunch Money Buddy

Produced by: Nick Gonzales

Table of Contents

OVERVIEW

This document serves as a plan to conduct a usability test on the Lunch Money Buddy mobile app. The Lunch Money Buddy app provides parents and guardians of school age children with a convenient and effective tool for managing their student's in-school lunch accounts, add funds, view balance, set up notifications and schedule upcoming lunch options. To ensure that users can successfully complete the app's primary tasks and to measure performance, we plan to observe nine users (three participants per each user group) complete a series of sixteen tasks. By observing users perform these tasks, we hope to gain a better understanding of user satisfaction, design concerns and app strengths. Serving as a foundation for the usability test, the goals of this activity include:
- To assess the learnability of the app's core functionality among first time users including the length of time and number of clicks it takes a user to complete the app's sixteen primary tasks
- To identify any accessibility concerns, challenges or problems with the design's interface and architecture
- To establish a benchmark of user performance

Once launched and available for download, this app will serve a wide range of target demographic user types. Considering the technological, cultural, socioeconomic and geographic diversity of parents and guardians, the app must be accommodating, accessible and user-centric. To ensure that the app meets the needs and expectations of our target audience, our usability test methodology will include a pre-test screener and survey, task performance activities, post-task questionnaires, post-usability test interviews and a post-usability test questionnaire.

GOALS, OBJECTIVES AND RATIONALE

Three usability test goals will be used as a foundation for the activity. Within each of these goals is a series of specific objectives that the usability team will look for and address during the testing process.

Goal #1: Assessing learnability of the app's core functionality
To gauge the learning curve of first time users with no experience using the app and measure performance success, the usability test will assess the learnability of the app's core functionality. By testing a common set of tasks and workflows across a range of user types, specific performance-based patterns and trends can begin to emerge. These patterns can reveal how well users perform a given task, the length of time it takes to complete the task and whether or not a user takes a direct path to satisfy the function. By collecting data on performance time and determining areas where a user feels impeded, we can identify which tasks have a steep learning curve and look for ways to reduce completion time, limit errors and improve performance.

Usability test objectives:
- Identify length of time it takes to complete each of the sixteen tasks
- Calculate the average number of clicks/taps it takes to finish a desired task
- Locate indirect or unintended task completion sequences (i.e. extra, unneeded steps)
- Discover where users get lost in the process of completing a task

Goal #2: Identify accessibility issues

Since users directly interact with the app's interface, it is important to consider accessibility obstacles and user needs. Through accessibility testing, we can identify problem areas within the app's user interface and architecture and look for ways to make the interface more usable, functional and enjoyable. Specifically, by evaluating the app's visual, auditory and cognitive accessibility, we can determine if any specific improvements should be implemented, while confirming web standard compliance. By accounting for visual elements, such as text, images and forms, as well as interactions and navigation, we can address specific areas that obstruct accessibility.

Usability test objectives:
- Evaluate visual interface
    o UI elements such as button and link size
    o Font size and type
    o Colors and color contrast between text and backgrounds
    o Icons accompanied by text indicators
- Evaluate navigation
    o Users can always return to a previous screen or home screen
    o Screen transition consistency
    o Global navigation is always available
- Evaluate cognitive constraints
    o Simple language, terms and labels
    o Signifiers and confirmations to verify task completion

Goal #3: Benchmarking user performance

By establishing a user performance baseline on the initial prototype, we can quantify the app's usability among target audience types. Using these findings allows us to compare future redesigns against the initial benchmark results. In turn, these quantitative findings can help us better understand how the app's iterations and design improvements impact the overall user experience.

Usability test objectives:
- Establish a task performance baseline
- Identify overall user satisfaction on app accessibility, user interface and core functionality
- Collect findings and use them to test future design iterations

PARTICIPANTS

To ensure a diverse pool of usability test participants, we expect to recruit three distinct user group types – novice, intermediate and advanced mobile technology users. In general, our recruiting criteria will emphasize technology-based qualities, experiences and level of comfort. By recruiting people with a wide range of experience using mobile technology, we will be able to more successfully understand the needs, goals and motivations of these distinct user types. Additionally, the results will help determine if the app is designed to at minimum meet the requirements of the least experienced participant group (novice users) and whether or not advanced users find the app enjoyable, meaningful and functional.

Recruitment

While participants are not required to have any experience with online-based lunch programs, they are required to be parents or guardians of elementary and/or middle school age children. Additionally, they must own a smartphone (iPhone or Android) and have downloaded at least one app in the past.

To identify the target audience and recruit usability test participants, we will conduct an online survey and screener. The screener is intended to ask respondents to define their experience with technology, while filtering out participants who do not meet the usability test requirements. Following the screener, a subsequent online survey will be used to categorize which of the three user groups the respondent falls under, as well as uncover basic demographic and behavioral-based characteristics.

Number of participants

To ensure a successful usability test, by gathering enough qualitative and quantitative data, we anticipate testing nine participants. These nine test participants will include three individuals from each of the primary target audience types – novice, intermediate and advanced user groups. Because there may be overlap between technology experience within the three user groups, we feel that three participants each will be enough to provide sufficient findings and results.

Participant qualities

In addition to participant experience with mobile technology, it is important to consider additional demographic qualities during recruitment. Therefore, our target demographic audience also includes the following individuals and characteristics:

- Two individuals (parents) with only one child
- Two individuals (parents) with two or more children
- Two individuals (parents) who qualify for a lunch subsidy program
- Two elder guardians (65 or older)
- One individual (parent or guardian) with a visual impairment such as color-blindness

Recruiting participants from these user types will ensure that we have adequate representation to address each of the intended goals and objectives of the usability test, as outlined above.

METHODOLOGY

Procedure

The team will conduct the usability test at a local testing facility. Because participants may be comfortable with a specific mobile device, they will be instructed to bring their own smartphone to the usability test. The device will be connected to a computer and recorded so that the usability team can reference the findings in the future. A facilitator will be seated next to the participant in order to provide instruction. A note taker will also observe the session from another room. The entire session will be video recorded.

After the facilitator provides instructions on the usability test, they will ask the participant to sign a consent form. Once signed and all questions have been answered, the test can begin. The facilitator will start by providing a brief overview of the app and explain how the test will be measured, as well as what the participant should be doing during each task (see 'measuring criteria and documentation' on page 7). Once the instructions have been shared and the participant agrees to begin, the facilitator will read off the first task. At the conclusion of each task, the facilitator will ask the participant to complete a short questionnaire. Following the completion of all required tasks, the user will participate in a one-on-one interview with the facilitator, as well as a post-usability test questionnaire.

Usability tasks

To test the accessibility and learnability of the app, as well as determine performance benchmarks, the nine participants will complete a series of task-based workflows and scenarios. Specifically, the users will be asked to:

Task #1	Download the app
Successful Completion Criteria	Participant finds the app from within the app store and successfully downloads it on their device

Task #2	Create a new account
Successful Completion Criteria	Participant opens the app, clicks on the sign up link and completes both steps required to create a new account

Task #3	Complete the self-guided app tutorial
Successful Completion Criteria	Participant signs into the app and uses the self-guided tutorial before getting started

Task #4	Add new funds to the account
Successful Completion Criteria	Participant finds the funds screen, selects a child and enters an amount of money to add to that child's balance

Task #5	Add a credit card and bank account as two payment methods
Successful Completion Criteria	Participant successfully adds a new credit card or bank account to their account on the app

Task #6	Select new payment method
Successful Completion Criteria	Participant toggles between multiple payment options and successfully choses one

Task #7	Delete payment method (bank account)
Successful Completion Criteria	Participant navigates to the account settings screen and deletes their bank account from the app

Task #8	Set up auto-replenish
Successful Completion Criteria	Participant navigates to the funds screen, opens the auto-replenish tab, enters an auto-replenish amount and selects a default payment option

Task #9	Locate the master account balance
Successful Completion Criteria	Participant finds the master account balance from the home screen and/or funds screen

Task #10	Select the correct lunch menu for a child
Successful Completion Criteria	Participants with two or more children select one of their student's lunch menus (as directed by the facilitator)

Task #11	Add a meal to their child's list of favorites
Successful Completion Criteria	Participant 'favorites' a meal from the detailed lunch screen or from the calendar screen

Task #12	Locate whether or not their child is eligible for a lunch subsidy
Successful Completion Criteria	Participant finds their child's subsidy status by visiting the account settings screen (under manage child settings)

Task #13	Add a new child to the account
Successful Completion Criteria	Participant navigates to account settings (under manage child settings) and enters an 8-digit student ID code

Task #14	Turn on balance alert text message notification reminders
Successful Completion Criteria	Participant navigates to account settings (under manage notifications), sets a balance alert minimum and turns on text messages

Task #15	Modify account settings – email address and home address
Successful Completion Criteria	Participant navigates to account settings (under update personal information) and changes their email address and home address

Task #16	Access account settings and delete the account
Successful Completion Criteria	Participant successfully deletes the account from the account settings screen

Measuring criteria and documentation

In order to monitor, collect and document the usability test results for each participant, we will use a pre-determined criteria set. The participant results from within each documented criteria addresses one or more of the original usability test goals – learnability, accessibility and benchmarking.

Criteria	Goals addressed
Encourage the participant to think aloud while the usability team takes detailed notes	Learnability and accessibility
Have the participant complete a short questionnaire after each task	Learnability and accessibility
Record how long it takes the user to complete each task; record where the user gets stuck and/or is unable to complete the task	Benchmarking
Conduct a post-usability test interview and questionnaire; allow the user to share their experience, level of satisfaction and areas of stress	Learnability and accessibility
Encourage the user to offer open-ended suggestions for improving the app	Learnability and accessibility

USABILITY METRICS

The effectiveness of the usability test, as well as the results and recommendations, will be measured using performance metrics.

Subjective measurements

At the conclusion of the usability test, users will be provided with an open-ended questionnaire allowing them to share their overall experience with the app and rate their

level of satisfaction. This questionnaire provides the participant with an opportunity to share their thoughts on any missing tasks or ways to improve the app's visual interface, navigation, labeling, user flow and accessibility.

Task completion time
To establish a performance benchmark, we plan to measure how long it takes for a participant to complete each of the sixteen tasks. This data can be used to measure task completion speed against future design improvements.

Completion rate
To ensure that all user types can successfully use the app and complete the app's primary tasks, our goal is for a 100% task completion rate among the three user group types. As a result, this means that all nine participants should be able to successfully finish each of the sixteen tasks.

Error-free rate
It is important that participants complete each task in an efficient and effective manner. However, we recognize that users may experience non-critical errors that temporarily influence their path to completing the task. Our goal is for a 75% error-free rate for each task during the usability test.

Novice user completion rate
All sixteen tasks should be successfully executed by the novice user group at a 100% completion rate.

REPORTING RESULTS

At the conclusion of the usability test, a report will be produced and shared with the leadership team. The report will include all findings and results, an evaluation of usability goals and objectives and recommendations for improving usability challenges and enhancing the application.