



Part 3.2: System Evaluation

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I. Project Description

The team aims to design a mobile commute app to improve public transportation in the Philippines. This app design addresses challenges faced by commuters and drivers such as long wait times, unreliable schedules, and safety concerns. This solution targets users who rely on Public Utility Jeeps (PUJs) for commute and livelihood.

II. Requirements Summary

Key requirements to consider in our user experience design include:

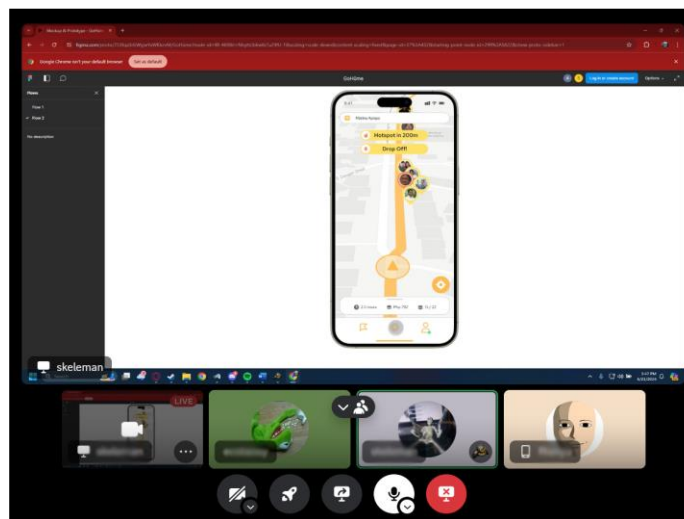
1. **Learnability and Navigation:** Users should be able to learn how to use the app quickly and navigate its features without encountering significant hurdles.
2. **Efficiency Improvement:** The app should demonstrably reduce wait times and enhance users' overall commuting efficiency.
3. **User-Centric Design:** The app's design should prioritize user experience, ensuring that it is intuitive, visually appealing, and does not distract users from their primary tasks.
4. **Real-Time Tracking and Notifications:** Users should receive reliable real-time updates on vehicle locations and accurate notifications of passenger hotspots to aid in their commuting decisions.
5. **Accessibility:** Ensure the app is usable by people with disabilities by incorporating features like adjustable text sizes.
6. **Personalization:** Allow users to customize their experience based on their preferences, such as preferred notification settings and saved locations.

III. Overview

Evaluation Methods

Procedure:

The team has conducted online moderated interviews with participants, where team members observe and note participants' behaviors, opinions, and any difficulties encountered on the Figma prototype. You can access the prototype with this link: <http://bit.ly/4cdwcJh>.



Conducting Moderated Interviews Online

Metrics:

During evaluation, present member(s) note down:

- **User's Click Path:** Record what path the participant took to complete the task.
- **Personal Observations:** Note down behaviors, opinions, and attitudes along with any errors, issues, or areas of confusion.
- **Quotes:** Note any significant quotes (positive and negative).
- **Task Completion:** Choose if the task was:
 - 1 - easy to complete
 - 2 - completed but with difficulty
 - 3 - not completed

At the end of the interview, participants were required to answer the System Usability Scale.

The online moderated interviews were tailored to gather in-depth insights into the usability of the GoHüme app, specifically addressing the unique needs of jeepney commuters in the Philippines. By observing participants' click paths, noting their behaviors, and collecting their feedback, the team is able to identify and resolve any usability issues, ensuring a smooth and intuitive user experience. The System Usability Scale at the end provides a standardized measure of the app's overall effectiveness and user satisfaction.

Tasks

Tasks performed by passengers include:

1. Locate where you would input your desired destination.
2. Locate the nearest jeepney going your route.
3. Arrive at the desired destination.
4. Message a quick contact.
5. View travel history.
6. Locate user profile.
7. Share user's current location.

Tasks performed by drivers include:

1. Locate user profile.
2. Locate where drivers can change their availability status.
3. Locate incoming hotspots.
4. View messages.
5. View driver's jeepney information.

The tasks assigned to both passengers and drivers are designed to thoroughly test the core functionalities of the GoHüme app, ensuring it meets the practical needs of jeepney commuters in the Philippines. For passengers, tasks such as locating destinations, nearest jeepneys, and sharing locations ensure that the app effectively enhances navigation and communication during their commutes. For drivers, tasks focusing on managing profiles, availability, and ride information help verify that the app supports efficient and organized operations. This comprehensive task list aims to validate that the app is user-friendly and intuitive.

Participants

Participants are:

- anyone who is a regular commuter, taking a jeepney at least once a week.
- anyone who resides in urban areas in the Philippines.
- aged between 16 & 65

Participant roles include:

- Passenger (4 – 6 participants)
- Driver (1 – 3 participants)

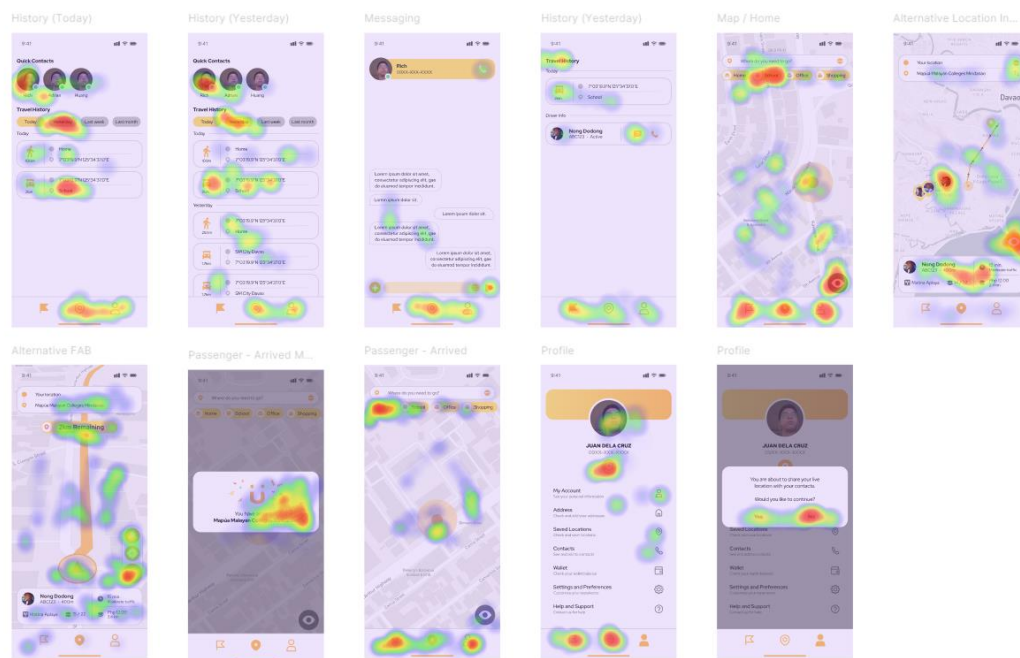
The team made sure to gather a diverse group of participants, including an even distribution of genders and people with different abilities.

IV. Results

Data Presentation and Analysis

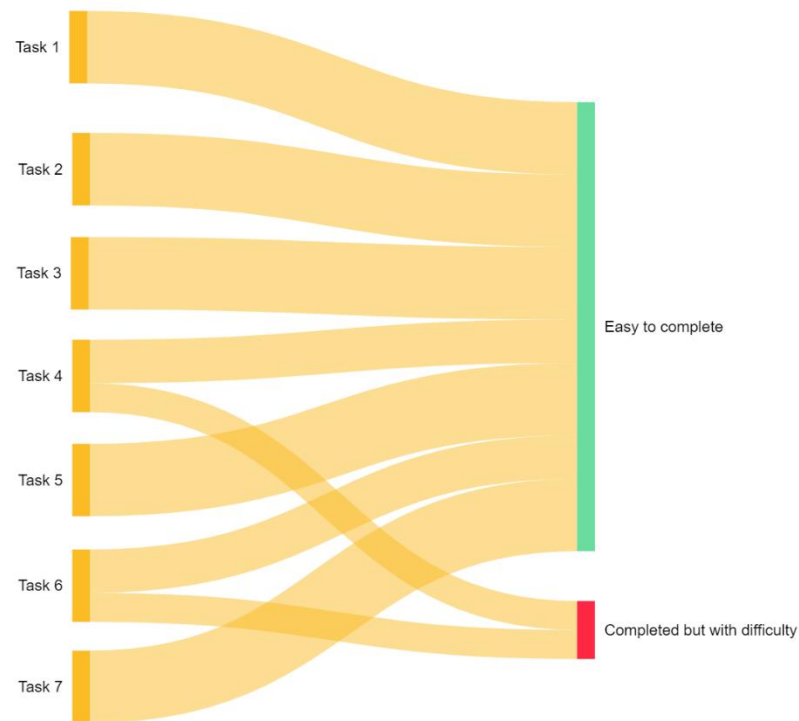
Passenger Mode

The evaluation was conducted with five participants, selected to represent a range of potential users. Each participant was asked to complete a series of tasks using the passenger mode feature. The tasks were designed to cover the primary functions and common use cases we idealized for the GoHüme App.



Passengers' click path

During the evaluation, we observed that passengers followed intuitive click paths for most tasks. For instance, when locating their desired destination, participants quickly navigated to the search bar on the home screen. Overall, most participants managed to complete their tasks with minimal missteps, suggesting that the app's layout is generally user-friendly.

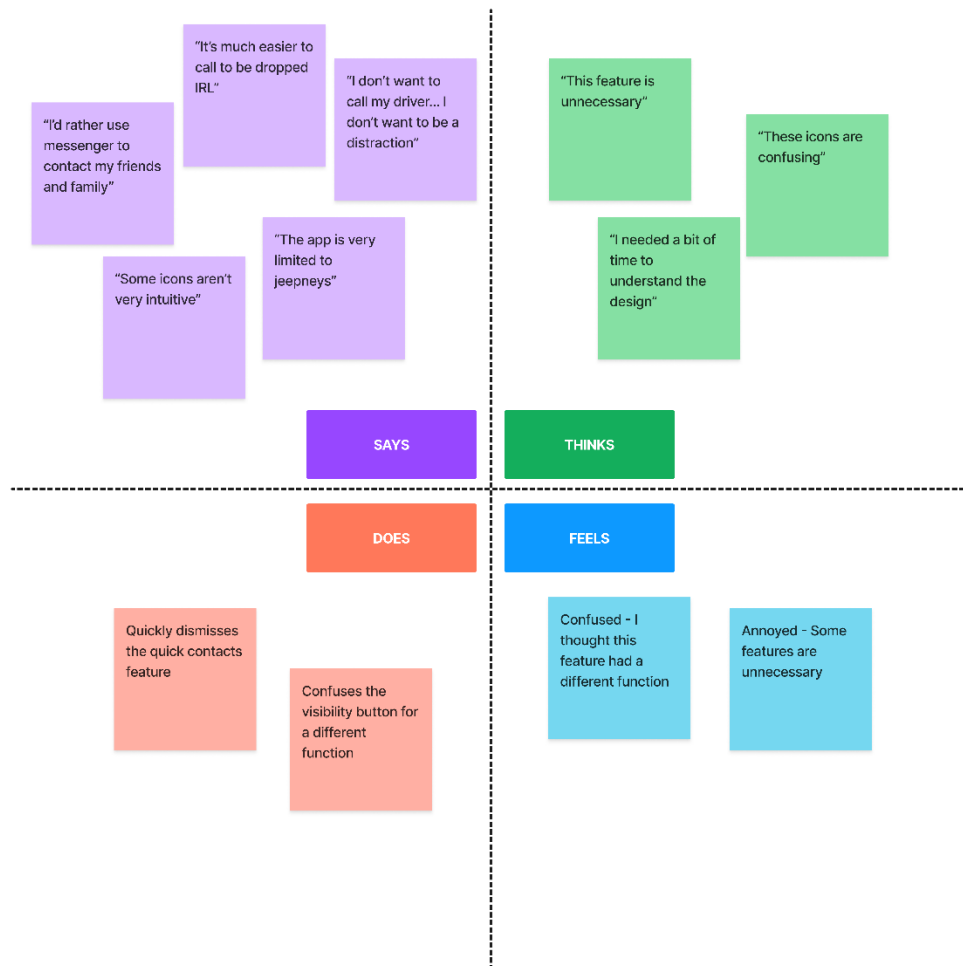


Passengers' ability to complete tasks

This Sankey diagram showcases how participants showed a high level of task completion, with the majority finding it easy to input their destination, locate the nearest jeepney, and share their location.

If you'll notice, a few of the participants had a little bit of difficulty for tasks 4 and 6 (peer messaging and locating user profile,) but users were still able to complete the tasks in a significantly short amount of time.

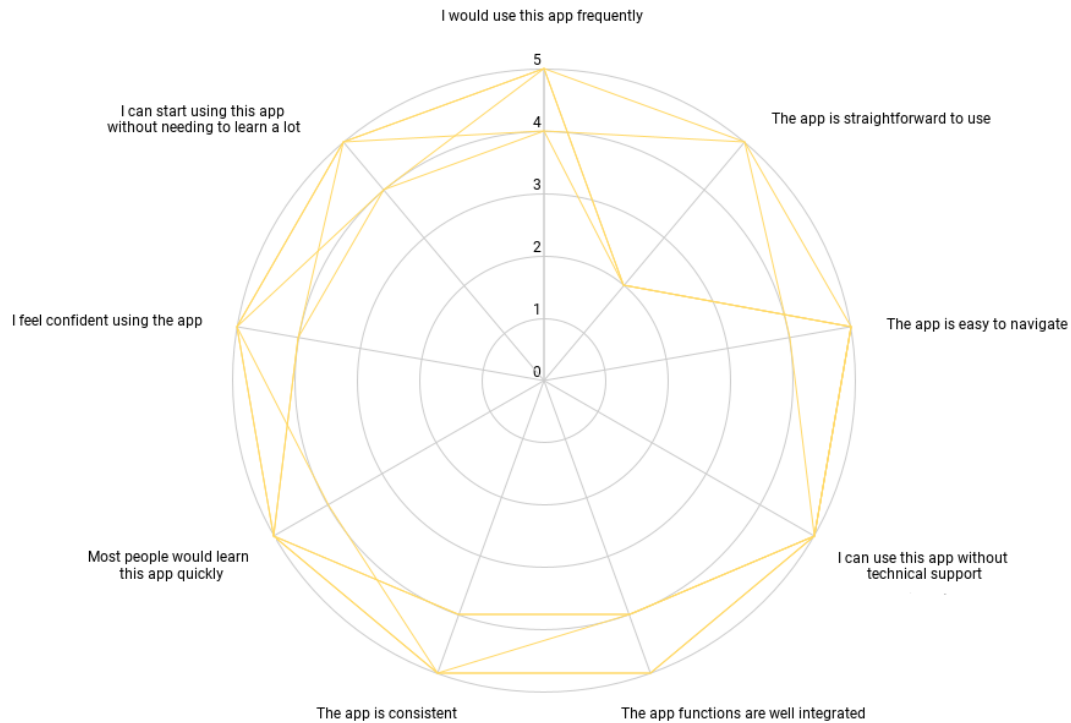
These results directly correlate with the heatmap data, which suggests that the main functionalities the team has designed for GoHüme achieves *Learnability and Navigation, Efficiency Improvement, and User-Centric Design*.



Passengers' pain points

Choosing to perform a moderated interview with participants was a beneficial decision for the design process. Focusing solely on the prior data, the team would have missed essential pain points to consider for *Accessibility*.

Several pain points emerged during the evaluation. The most significant issue was related to the messaging feature, which some users found unnecessary and confusing. Other issues that have emerged were related to the app's icon choices. This feedback aligns with the lower scores in the System Usability Scale regarding the straightforwardness of the app, which will be discussed next.



Passengers' System Usability Scale results

The System Usability Scale results were generally positive, with most participants giving high scores for ease of learning, visual appeal, and overall satisfaction.

The feedback was less favorable regarding the simplicity of use, particularly concerning the messaging feature, which some users deemed superfluous.

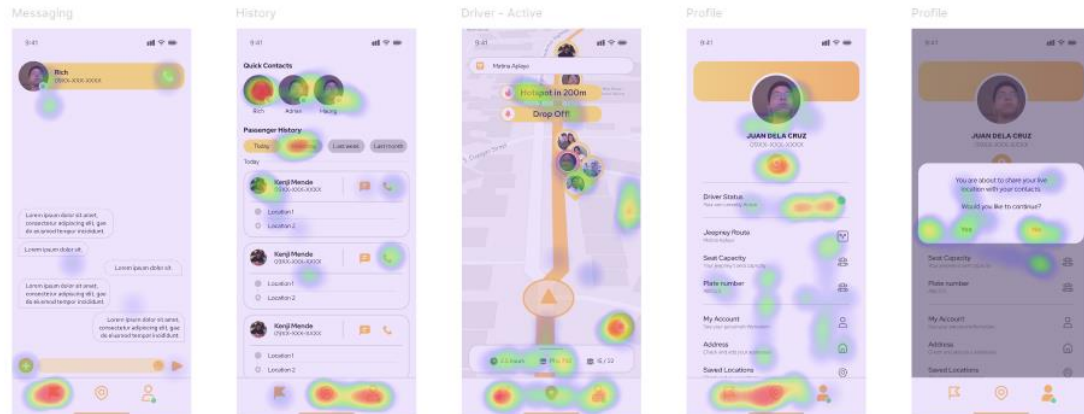
One interviewee pointed out *"Maybe I'd message my driver if it was an emergency, but I certainly wouldn't call them. That would be too intrusive."*

Another interviewee says *"I don't feel it's necessary to add a messaging feature on a commute app. I'm just going to use messenger anyway."*

This mixed feedback suggests that while the app is well-received in many aspects, simplifying or removing less critical features like messaging could enhance user experience and perceived usability.

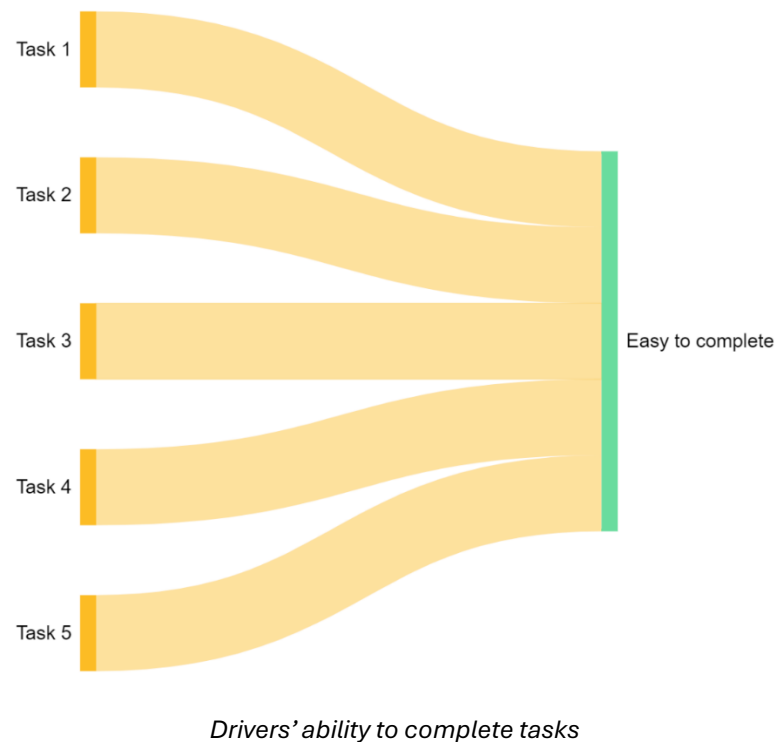
Driver Mode

The evaluation was conducted with two participants. Each participant was asked to complete a series of tasks using the driver mode feature. The tasks were designed to cover the primary functions and common use cases we idealized for the GoHüme App.



Drivers' click path

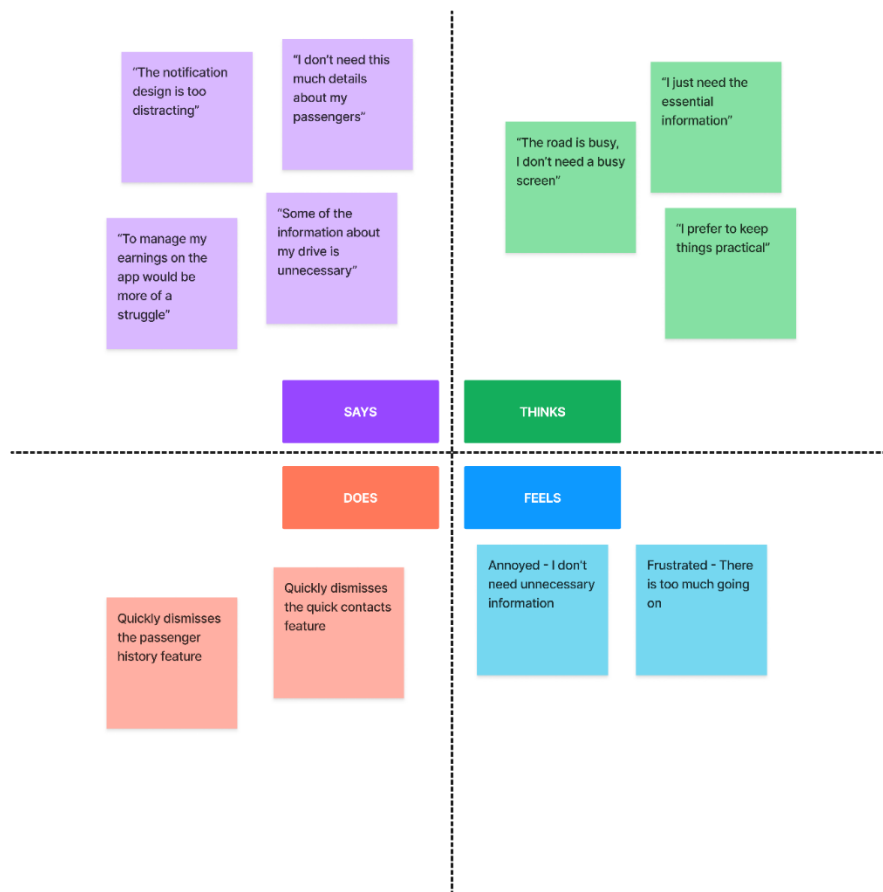
The drivers' evaluation revealed that they generally found the app's interface straightforward and easy to navigate. Most drivers quickly located essential features such as profile settings, availability status, and incoming hotspot notifications. This design has already achieved *Learnability and Navigation*.



Drivers were able to complete the assigned tasks with relative ease. Compared to the passenger mode, users for the driver mode found all tasks “Easy to complete.”

Key tasks, such as updating availability status and viewing jeepney information, were completed without significant issues. This suggests that the app has achieved a *User-Centered Design*.

Nonetheless, while drivers were able to complete the tasks given to them without significant difficulty, we look into their insights on the app’s design to gather points for improvement.



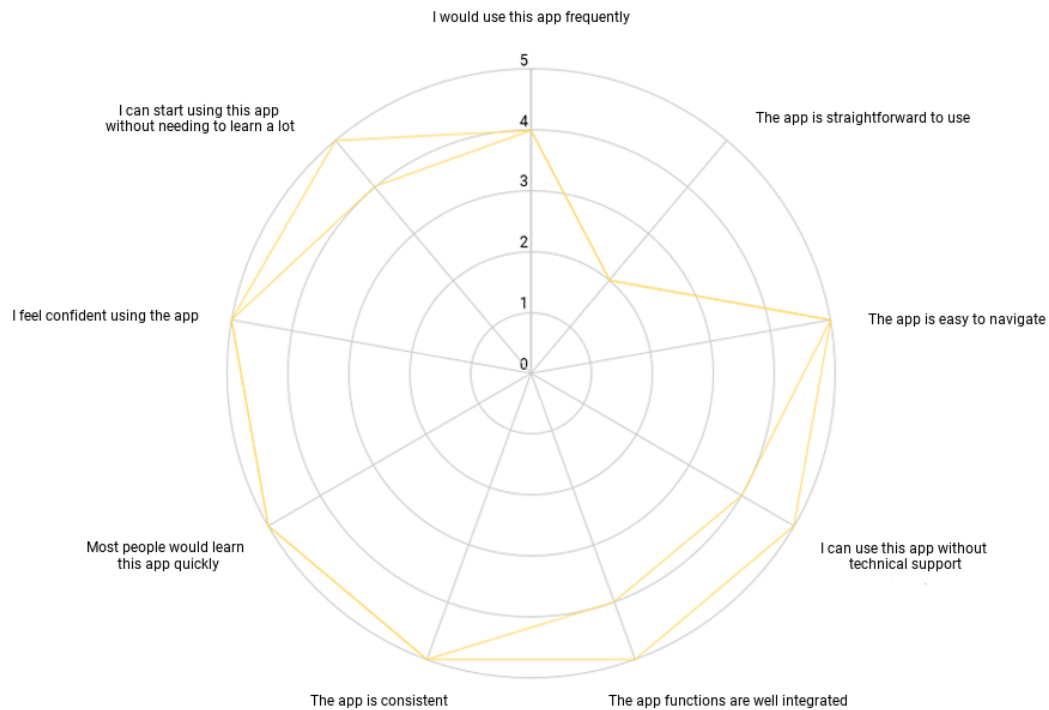
Drivers' pain points

Pain points for drivers included difficulty with the messaging feature and possible information overload with hotspot and drop-off notifications.

One interviewee says that that *"The road is busy. I don't need a busy screen."* This means too much information from the drivers' device could lessen their focus on the road. This is an important point to consider, as it poses a potential risk for road safety.

Performing task 4 (View Messages) the interviewees have expressed concern regarding the passenger history. *"I don't care for this much information about my passengers. Frankly, it feels like an invasion of their privacy."*

Addressing these issues will significantly enhance not only the drivers' experience, but the passengers' experience as well.

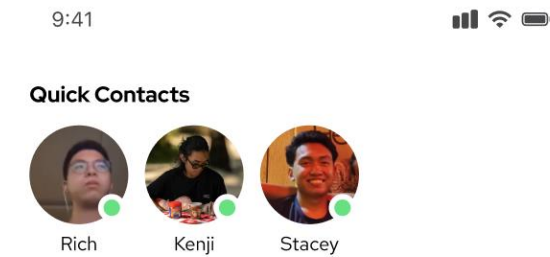


Drivers' System Usability Scale results

The drivers' System Usability Scale scores were mostly positive, reflecting satisfaction with the app's overall functionality and ease of use. However, like the passengers, drivers gave lower scores regarding the straightforwardness of use, particularly for the messaging feature and passenger history feature. This feedback underscores the necessity to streamline or rethink this aspect of the app. Improving these areas could lead to higher usability scores and greater overall satisfaction among drivers.

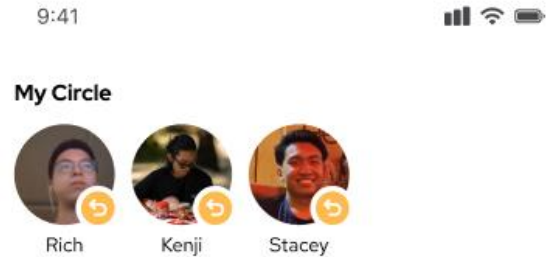
Design Implications

Make Features Relevant



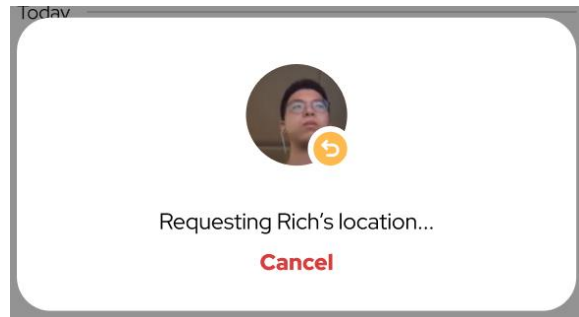
Before

The team offered users the functionality of messaging via the GoHüme app. Most users agree that the messaging feature is unnecessary.



After

One feature our users found practical was location sharing. Instead of manually sharing your location, we'll change it into location requests.

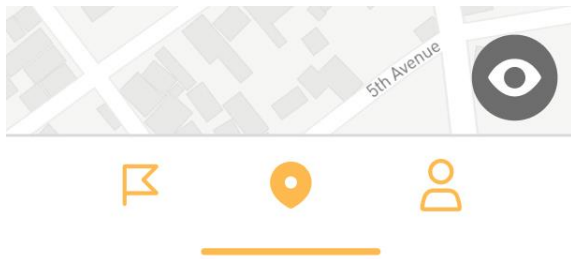


Update: Request Location

In previous designs, the user shares their location with all their contacts. This poses a pain point on user privacy.

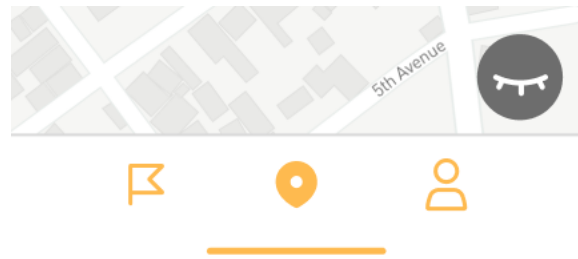
Now, we'll do individual requests to other users' locations.

Enhance Intuitiveness



Before

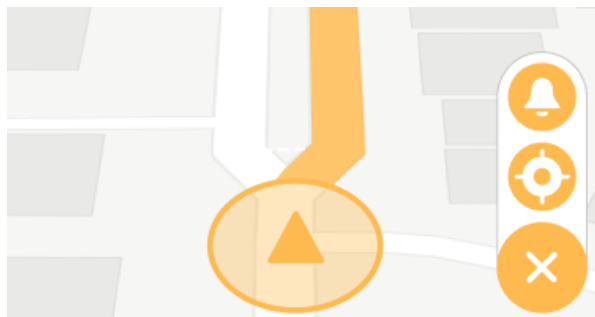
It is essential that the icons of the app are intuitive and conveys the appropriate message.



After

After initial confusion during evaluation, one interviewee suggested the “closed eye” icon to represent invisibility.

Remove the Unnecessary



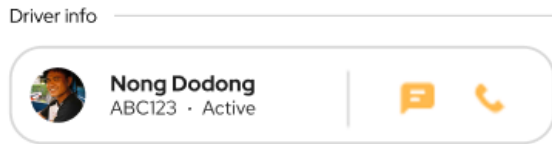
Before

The app included a drop-off button (bell), which users confused as a notification button which led to more confusion in the context of real-time updates.



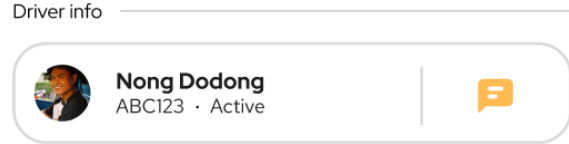
After

We keep it simple with a re-center button of the “active drive” mode.



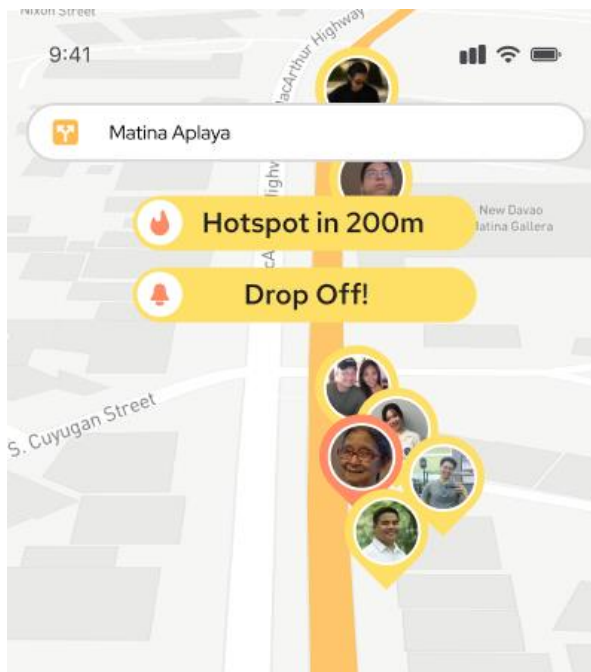
Before

We included an option to contact drivers via call. Most users think this is unnecessary.



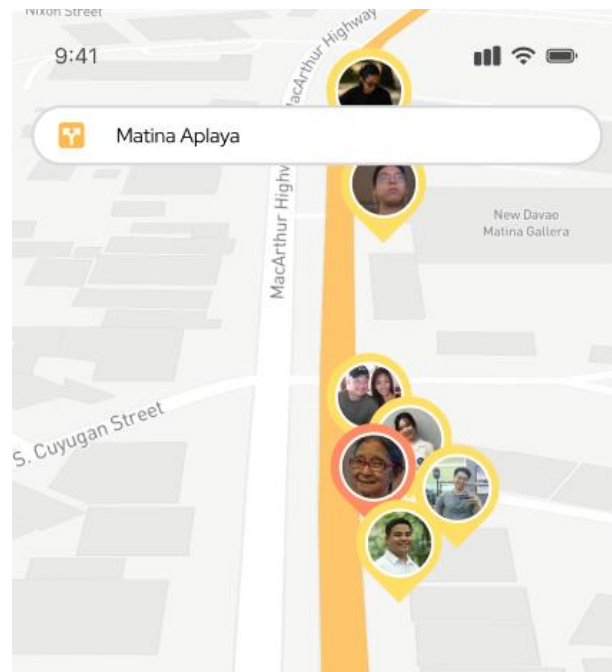
After

We'll remove the call functionality and keep simple direct messaging.



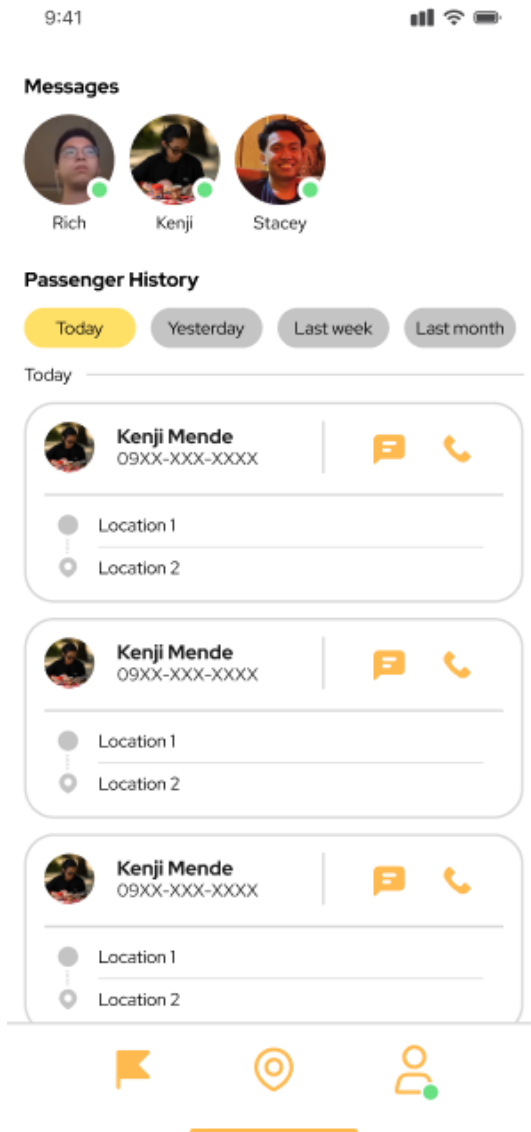
Before

Notification will alert drivers of nearby passenger hotspots and passengers that need to be dropped off.



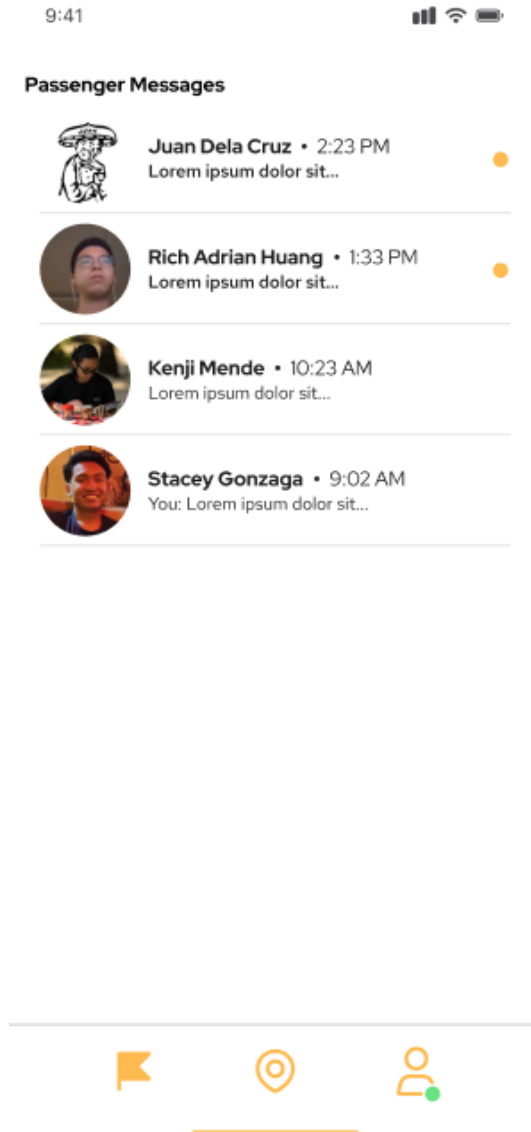
After

The notifications may be distracting for some drivers, so we'll allow them the choice to turn them on or off.



Before

Users of the driver mode found the “passenger history” feature too excessive.



After

We’ll keep the passenger messages for emergency situations and remove all the unnecessary information.

V. Critique and Summary

The system evaluation revealed both strengths and weaknesses in the GoHüme app. While the core functionality and design were well-received, certain features like messaging and notifications needed refinement. Users found these features either unnecessary or intrusive.

The recent updates to the GoHüme app have significantly improved its usability and relevance. By adding the ability to request contacts' locations, the app now better facilitates group travel and enhances user convenience. Selecting more relevant icon designs guide users to understand the app in an easier way. Removing unnecessary elements such as the call functionality for both passengers and drivers makes the design less cluttered and more user-friendly.

The changes which have been included made the GoHüme app more aligned with user needs and expectations, and better matches our requirements specifications. The app now offers a more intuitive and enjoyable experience, effectively supporting the commuting habits of jeepney passengers and drivers in the Philippines. Continuous user feedback and iterative design improvements will be essential to maintaining and enhancing its usability in the future.