SCHOOLPOOL: Evaluation Results and Discussion

Description of the Study

The study used in-person usability testing to ensure we could observe how participants interacted with the prototype. The method provided immediate feedback on their experience, which allowed for a more tailored approach. The research methods chosen were ethnography and a post-study interview. Ethnography allowed us to observe users complete tasks, and post-interviews were done to clarify any behaviors, reactions, and interactions of the participant with the interface. For the pilot session, one of our members was able to request a classmate to participate. The participant only commented on the lack of a sign-in button once an account is already registered. Other than that, the participant found the task flow easy and straightforward. There were no difficulties, such as a lengthy session or difficulties with interactions. However, there were suggestions and concerns raised by participants based on personal preferences.

The final study incorporated a think-aloud protocol, encouraging participants to provide feedback on their thought processes while navigating the interface. Two main tasks were given to participants: log in and book a ride. Under those two tasks, specific scenarios were also observed, such as verifying an account and creating a profile. These tasks allowed us to assess and test the effectiveness of the interface to prospective users, the onboarding process, and implemented features to help the user experience. For the pilot test, we took notes on how participants interacted with the designs, their opinions on the features, and the overall interface. We provided clarification whenever participants asked about a certain feature to help them progress. A post-study interview was conducted afterward to gather suggestions and comments about the app. Specifically, we asked participants to comment on the login system, profile creation, ride booking information, overall UI, overall task flow, and other additional comments that they may have. The participants' responses were then analyzed qualitatively, grouping common quotes and labeling them based on features, design elements, or general concerns. Through this method, we were able to identify patterns and areas of improvement.

The group was able to recruit eight UVic students to take part in the study. Our team aimed to interview diverse participants from different faculties with different modes of transportation and other factors, but this was one of our study's limitations. Thus, the number of participants was determined based on feasibility and time constraints.

Results

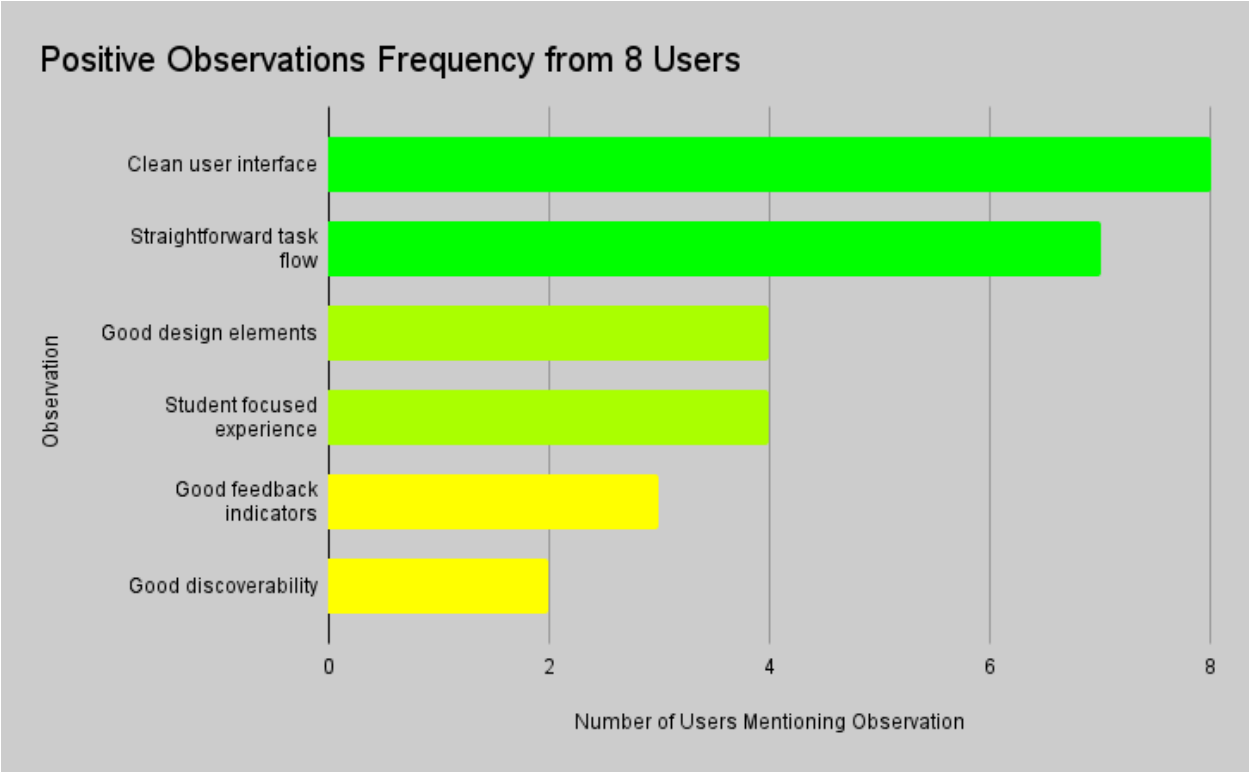

Figure 1: Positive Observations of Users and the Amount of Mentions

The usability testing of the prototype involved 8 participants, and their feedback provided valuable insights into both positive and negative aspects of the application's design and functionality. Overall, the participants found the overall task flow to be straightforward and easy to navigate. They appreciated the clean and professional user interface, which was considered informative and easy to follow. The design elements were well-received, with participants mentioning the minimalist design and familiar layout. The application also focuses on student experience, such as matching based on hobbies and interests, which was also positively acknowledged.

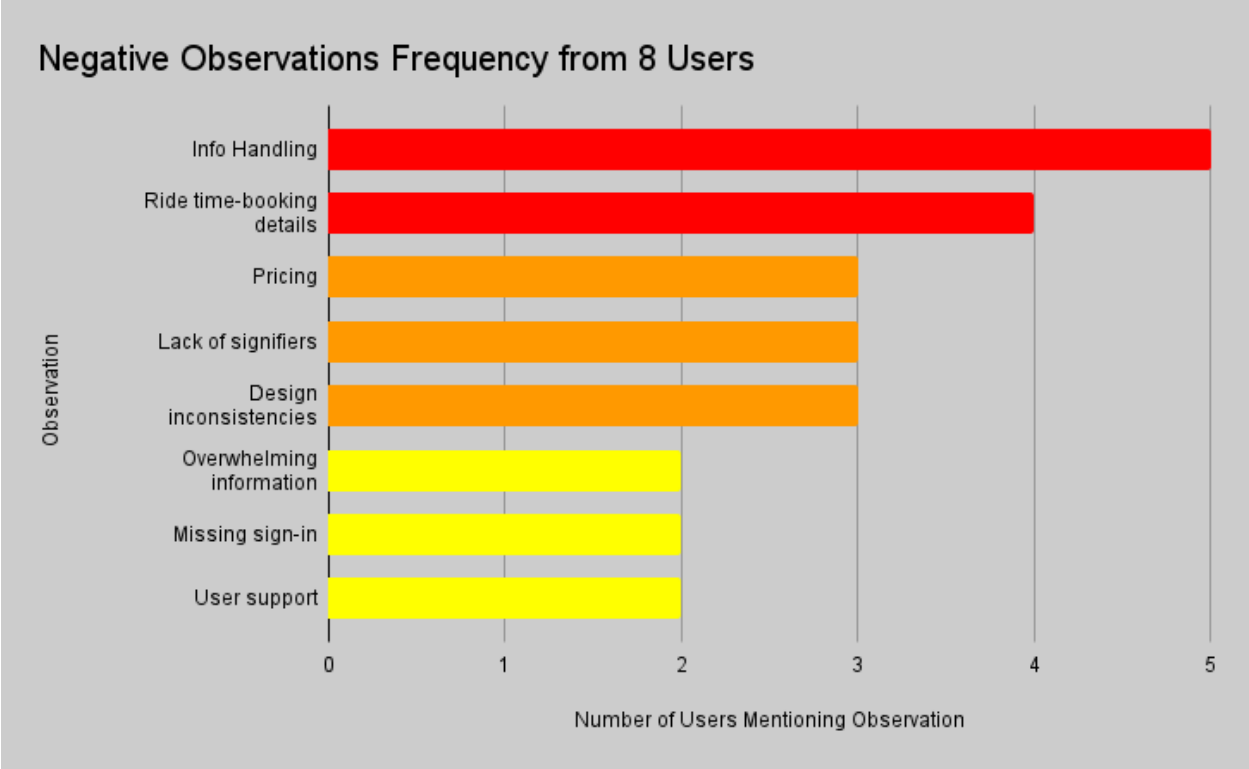

Figure 2: Negative Mentions of Users and the Amount of Mentions

On the negative side, participants raised concerns about customer support and suggested the inclusion of a ‘Get Started’ page or a mini guide before the login form. They also desired a more clear information handling, such as a sign-up page instead of only a sign-in page and verification of driver’s license authenticity. Some participants were a bit puzzled about the social media aspect and also recommended improvements in the ride-booking information, including clearer pick-up times, a comprehensive view of driver information, and the ability to set locations on a map.

Participants also expressed the need for transparent pricing and desired a display indicating which rides were free or had additional costs. They also raised concerns about the lack of signifiers, such as the welcome page’s purpose and the absence of a continue button on the social media page. Overwhelming information on certain pages, like account info and carpool setup, was mentioned, suggesting a need for better organization. Design inconsistencies, such as differing filter icons and a lack of color, were also noted.

These findings indicate that while the application has several positive aspects, such as a straightforward task flow, clean design, and a student-focused experience, there are areas for improvement. Enhancing user support, clarifying information handling, improving ride booking information, addressing pricing transparency, providing clear signifiers, organizing overwhelming

information, and addressing design inconsistencies should be prioritized to enhance the overall usability and user experience of the app.

Discussion

The majority of our design decisions were liked. All participants indicated that the user interface was clear and all but one found the task flow to be straightforward. Half of the participants stated that the design elements were good and enjoyed the student-focused experience. A minority indicated that the design had good feedback indicators and discoverability.

There were some design decisions that were not liked by the participants. Half or more reported with the information handling and ride time booking details. Three of eight mentioned a lack of signifiers, problems with the pricing system, and general design inconsistencies. A quarter of participants had issues with missing sign-in information, an overload of information on certain pages, and a lack of user support.

From the data, it can be concluded that the design performs well, with some issues interrupting the user experience. From the negatives, it seems that the next design iteration would need to primarily focus on better processing the information given by the user and a better system for organizing information for setting up a carpool and finding a driver. The problems with a lack of signifiers, along with a low portion of respondents mentioning good feedback and discoverability, indicate that there should be more focus on improving the user's ability to navigate the app.

The biggest surprise comes from the low score in discoverability, especially given the simplicity of the design. The overwhelming information and the missing sign-in are the least surprising given that a large amount of information in one place clashes with the minimalist design, and the lack of a register button would make registering hard to figure out.

Study Limitations and Reflections

The user evaluation effectively served its purpose, enabling us to confirm the viability of certain design choices, identify elements that require refinement, and recognize potential additions that would improve the interface. However, certain aspects could be improved in future evaluations to further enhance the process. For instance, considering a benchmark evaluation with a competitor's application could provide insights regarding how the prototype compares to existing solutions.

Since the participants interacted with a medium-fidelity prototype, there were constraints related to functionality, interactivity, and placeholder content. These limitations, such as inaccessible

sections, unimplemented buttons, and pre-filled text boxes, might have influenced participants' experiences and feedback. However, many of our findings can be applied to different domains, as the majority of user feedback focused on improving the interface's usability. Concerns related to the use of personal information, such as phone numbers and vehicle plates, were also expressed and are valid across various domains.

Several biases may have influenced the results of the evaluation. The presence of an evaluator during user sessions could have introduced observation bias, inadvertently affecting participants' behaviour and feedback. Additionally, the personal relationship between the participants and the evaluator might have influenced their responses, potentially skewing the feedback. Prior experience bias is also a possibility, as participants may have drawn comparisons and made assumptions based on their experience with similar applications. Furthermore, the group selected specific observations regardless of whether other participants shared the same feedback, prioritizing those deemed most important for discussion. However, this approach may result in some significant observations being overlooked or not mentioned.