

Project 4b Report

HobbyMate

#g4-huynh-vimalathan-robertson-zhou

Ken Zhou, Minh Huynh, Anushan Vimalathan, Connor
Robertson

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Academic Integrity Statement

We, Ken Zhou, Minh Huynh, Anushan Vimalathan, Connor
Robertson, declare that all of our work is our own and not taken
from any other sources.

PART 1: USABILITY STUDY PLAN

1. Welcome and brief the participants, obtain consent.

1. First we would welcome the participant and introduce ourselves and our company. Then we would describe HobbyMate as a mobile app that helps people start new hobbies. We would explain that the goal of this session is to observe how potential users use the system.
2. We would explain that their role is to try to find a new hobby using this system. We mention why we have selected the participants to partake in these tests.
3. Mention that there will be observers that will be watching participants as they take the tests. Participants will have to conduct a series of tasks using our prototype.
4. If participants are having difficulties with using the prototype, they can call an observer over and discuss the difficulties they are facing.
5. Take note of what the participants are saying and thank them for their participation.
6. The prototype will work like a mobile app. In this mobile app you can create an account, find hobbies, look at more information for those hobbies and buy or rent equipment. The prototype will be updated based on the collective feedback we receive from the participants. That data that will be recorded will be how each participant goes about doing the given set of tasks.
7. We then give them the consent form and carefully go over it with them. Then if they agree to the conditions in the consent form ask them to sign it. Provide their honorarium regardless. Escort them to the test room if they give consent to participate in the Usability test.

2. Evaluate the usefulness in a semi-structured interview.

The purpose of our system is to allow people to find new hobbies to keep them occupied inside during the pandemic.

- What kind of hobbies do people have?
- How were they able to learn how to perform their hobbies?
- Where would they get the tools to perform their hobbies?

3. Evaluate usability through task performance.

- Task one: ask them to start taking lessons in the chess hobby
- Task two: ask them to rent a wooden chess set for the chess hobby for 3 months

4. Examine the participants' conceptual model.

- Can you navigate through the prototype easily?
- Where are you having problems when using the prototype?
- Is there anything you don't understand about the prototype?

5. Gather suggestions for improvement.

- What did you expect to happen when you did this?
- What do you think is missing from the prototype?
- Do you have any suggestions on how to improve the prototype?

6. Evaluate usefulness with Function Descriptions.

Observe the participants while they use the following functionalities and note how useful each of these functionalities are (ask participants on usefulness as well):

1. Provide resources and forums to help guide users and improve their performance with hobbies
2. Allow users to explore a variety of hobbies
3. Progress tracking
4. Allow users to rent or purchase hobby equipment

PART 2: DESIGN REVIEW

Here are the results of our heuristic evaluation:

HobbyMate Prototype 2 Heuristic Evaluation

Screen	Heuristic Violated	Severity	Description
All screens	User Control and Freedom	3	No back button to return to previous page
All screens	Consistency and Standards	2	Hamburger icon on right side opens a menu on the left
All screens	Help and documentation	3	No tooltips, in place explanations, or tutorials for first time users
Purchase	Error Prevention	3	No confirmation on submitting purchase
Purchase	Error Prevention	2	Expiry date allows for letter input. Requires user to manually enter "/" character

Purchase	Error Prevention	2	Card number and security code allow user to enter any amount of digits.
Purchase	Error Prevention	2	Addresses are entered in one line. Format not clear
Home Page	Recognition rather than recall	1	“+” button on home page does not clearly say what it does.
Settings	Flexibility and efficiency of use	2	No personalization options to change layout
Hobby Specific	Aesthetic and minimalist design	1	No bottom padding on the buttons at the bottom

After conducting a heuristic evaluation on our second prototype, we learned that there are some usability issues in our design. To address these issues, we came up with some possible solutions that can be implemented to improve the usability of HobbyMate.

Proposed Solutions to Usability Issues

Description	Solution
No back button to return to previous page	Add a back button to the top bar to allow the user to return to previous page
Hamburger icon on right side opens a menu on the left	Move hamburger icon to the left side of the screen, so that it is on the same side as the menu
No tooltips, in place explanations, or tutorials for first time users	Add in place explanations that appear whenever the user does an action for the first time. These explanations can be disabled in settings
No confirmation on submitting purchase	Add a confirm order page which will allow the user to confirm or cancel their order after viewing an order summary
Expiry date allows for letter input. Requires user to manually enter “/” character	Add a drop down menu for the month, and a 2 digit restricted input field for the day
Card number and security code allow user to enter any amount of digits.	Add a maximum amount of digits for the card number and security code
Addresses are entered in one line. Format not clear	Split the address into different sections such as country, province, city, house number, street, and postal code

"+" button on home page does not clearly say what it does.	Add an in place explanation on first use to explain the button's function
No personalization options to change layout	Add a customize layout page which can be accessed from settings
No bottom padding on the buttons at the bottom	Add the padding for the buttons

A new goal we have for HobbyMate is to plan how the app will be used once the pandemic is over. Our reason for creating HobbyMate was to allow users to fill in the free time created by the pandemic. We believe that this app will still be useful after the pandemic, as people are always trying to learn hobbies. To achieve this goal, we would have to adapt to the lower free time available, perhaps by making the lessons for hobbies shorter, or making lessons that allow users to stop in the middle and continue whenever they want.

When creating our persona Joe Mama, we mentioned that he has had more free time during the pandemic. We could benefit from creating a persona that has not had their free time affected due to the pandemic, or has had less free time during the pandemic. This would give us a good idea of how users without a lot of free time would use HobbyMate. To see how someone with less free time would use HobbyMate, we can imagine our persona Joe Mama in the future, when he is no longer in lockdown and lacks free time.

Here is our modified **persona**:

Name: Joe Mama

Gender: Male

Age: 22

Location: Toronto, Ontario

Marital status: Single

Education: Working towards an Undergraduate Bachelor's Degree in Journalism

Job: Part-time McDonald's

Joe Mama lives alone in his Condo that he is renting in downtown Toronto. He is a Third Year Journalism student at Ryerson taking online classes in the upcoming semester. He currently works part-time at McDonald's where he usually takes the overnight shift. Due to a high workload from school, as well as having a part-time job, Joe Mama does not have a lot of free time. Joe Mama is currently interested in learning a new hobby, but finds himself not having enough time to learn a hobby.

Here is a **scenario** that shows Joe Mama trying to learn a new hobby with HobbyMate:

Joe Mama wants to learn how to garden, but he has no previous experience. He downloads HobbyMate on his smartphone, and creates an account. When browsing through the available hobbies, he sees gardening on the list, so he subscribes to that hobby. He wants to get started learning gardening, but he does not have much time left until he has to go to work. He starts the introductory lesson to gardening. In the first lesson, he has to watch a video to learn the basics. In the middle of the video, Joe Mama has to go to work, so he stops in the middle of the lesson. While he is on his break at work, Joe wants to continue learning gardening, so he launches HobbyMate. When he goes back to the lesson, he notices that his progress in the video was saved, so he is able to continue from where he left off. Joe Mama then completes the lesson while on his break, and can now start gardening.

For our proposed functionality, there were some questions that were not answered well in our functional requirements. Firstly, we did not mention where we are getting the available hobbies. Our app will have an initial list of hobbies, which our initial instructors are able to teach. After launching the app, we have an option in the settings where users can submit hobby suggestions, which we will use to add more hobbies. We also did not mention how instructors interact with the system. Instructors will have unique accounts, which allow them to upload lessons when they go to their hobby page. They will also be able to post on the forums to make announcements on when they will be available. The next thing we did not mention is how the equipment is provided. We work by connecting users to their local hobby stores to purchase their equipment. Users can pay through our app, and the money will be forwarded to the local hobby stores, who will deliver the equipment if it is available. Lastly, we did not mention how hobby progress is tracked. Each hobby will have lessons, and the user can see how many lessons they have completed, as well as their current lesson. Users will also be able to set their own custom goals for each hobby, and can self report the goal's completion.

In conclusion, we believe that our design is successful. There are some minor usability issues, as we found by applying Neilson's usability heuristics. We came up with possible solutions to the usability problems that were found. There is room for improvement with HobbyMate, such as being able to adapt to the future, when there is no pandemic. We modified our persona to be in a position where he does not have free time, and created a scenario of him learning a new hobby. In this scenario, we found out that it is possible to fit in hobby learning throughout the day if lessons can be interrupted in the middle. Lastly, we refined some of our functional requirements, by answering some questions that were not clear in our previous reports.

Appendices

Contribution Report

✓: Took part in

	Ken Zhou	Minh Huynh	Anushan Vimalathanan	Connor Robertson
Usability Study Plan	✓	✓	✓	✓
Design Review	✓	✓	✓	✓