

Project 6. User Evaluation

Written protocol

- **Instructions for preparation and setting up the testing environment:**

The software we used is “Figma”, it can be opened in Safari, Chrome. [Here](#) is the prototype website. After opening the prototype website, click on the “option” on the upper right corner and choose “Fit - scale down or up to fill”.

- **Introduction and informed consent:**

We would record your voice or video if you are comfortable with being recorded. Your answers to the questions would be collected. However, Your name would be anonymous and the other personal information won’t be kept in our report. Overall, this is for the class CS565 only, we will destroy the data after finishing collecting data. Thanks for understanding.

- **Task list:**

- Open the map and choose the recommended preference route from multiple routes before hiking
- Enter and experience the VR model to see the surroundings ahead
- Use the four functions in vr mode: mini-map, dangerous list, interesting list, and like.

- **Recording strategy:**

Our team members will conduct interviews through zoom and videotape the interview process. One of the team members is responsible for communicating with the interviewees as facilitator, two team members are responsible for observing the interviewees and recording them in words as observers, and the other team member is responsible for recording the respondent's answers in words.

- **Questionnaires, Interview questions:**

1. Was there anything that didn't look the way you expected? If so, what was it?
2. Was anything out of place? If so, what was it?
3. Do you feel any inconvenience when using this webpage?
4. Do you find anything useful for you on the website?
5. What do you think can be improved in the UI design of this webpage? (E.g. font size, image size, etc.)
6. Have you decided to buy VR after using the website?

7. Was there anything that surprised you? If yes, what?
8. Did you find everything you were looking for?
9. Would you be interested in participating in future research?

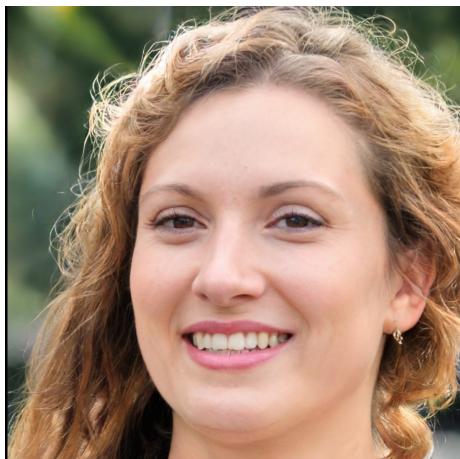
- **Debrief prompt:**

Thank you for taking the time. We are pleased that you participated in this interview, which will help us improve the user experience.

Session observations

Participant A:

She is a female with no VR equipment. Her major is Civil Engineering. She is an experienced hiker with 5 years of hiking experience. She is a representative target user because she used to use the AllTrails website frequently.



[Interview with Participant A](#)

Since this user is familiar with the Alltrails website, and we considered the consistency with the original website when designing the UI, the user completed the task very smoothly.

During the interview, she also gave her own opinions. She thinks that some icons and characters on the map are too small to be troublesome for the visually impaired.

She also hopes to find the key locations in the route on the map. The dangerous list and the interesting list are very good, and it would be better if they can be shown on the map.

In addition, she thinks our page is very concise.

Participant B:

He is a male with VR equipment, his major is computer science at OSU. He is an experienced hiker with 4 year experience. He is a representative target user because he is

a freshman at AllTrails and not that familiar with the website, which means he can give more user experience from intuition.



Interview with Participant B

The user encountered a big problem when using our product. First of all, he did not know how to open the map. For example, the user tried to click the recommendation bar on the left to enter the map, but failed.

The user also spent some time understanding the representation of the route. However, he quickly entered the VR function and the small map function. He believed that the icons cannot be used to quickly distinguish between dangerous lists and interesting lists.

In the interview, the user believed that the blank area on the main page is too large. Some of the icons block the map. The route can also be classified into different types, such as walking and biking.

The user also believes that the interaction between pages can be increased, and the current page lacks buttons for mutual navigation or pointing to each other.

In addition, the user thinks that the added user review function is very helpful.

Usability lessons and reflections

Usability issues:

1. Homepage of this website is too empty. (b)
2. The map does not identify route 1 or route 2. (a,b)
3. Some text fonts are too small for visually impaired persons, such as the text in the dangerous list. (a)

4. The pop-up box to choose “route” is too large. (a,b)
5. The dangerous list and interesting list cannot be clearly distinguished. (b)
6. The mini map of VR doesn’t support zoom in/out. (b)
7. The print function could be reduced. (b)
8. Some icons block part of the map and VR display.(b)
9. Lack of the mutual navigation or mutual pointing buttons between pages. (b)
10. Users more often close pop-up boxes by clicking the blank area, instead of clicking the close icon lastly. (a,b)

* a represents participant A, b represents participant B.

Solution for the relative usability issues:

1. Add the default picture in the homepage.
2. Add the hint to identify the specific route name.
3. Increase the font-size of the dangerous list.
4. Minimize the pop-up box.
5. Change the icons’ appearance. And show text tips when hovering over icons
6. Add the zoom in/out function in the mini map of VR.
7. Delete the print function.
8. Increase the transparency of icons on maps.
9. Add the Breadcrumbs function to show the page location.
10. Add the function to close the pop-up boxes by clicking on the blank area.

High-level reflections:

- When designing, we can put ourselves into the role of the user and consider more about user habits. For example, users are more likely to finish exploration quickly by clicking a blank area.

- When designing, we should think more about the minority, such as disability. Since one of our participants mentioned that some disabled people may have difficulty zooming in on the specific details of the maps, such as font-size, colors and so on. Therefore, we could consider more user groups the next time.

- When designing, users are more likely to use a product based on their previous experience. If we do it next time, we could make the user experience more consistent with the human being's social behavior.

Plan for iteration

First, we would like to implement our solutions for the relative usability issues, such as the “Add the default picture in the homepage”.

Then, we would also discuss the above with the TA or professor during class time.

Following the feedback we will receive from the presentation on June 3, we will discuss them in our group and decide which design points should be modified.

Contribution statement

Everyone contributes ideas for the homework.

Xingjian Su: As an observer in the interview with Participant A; as an interviewer in the interview with Participant B; summary description of the conversation; participated in the discussion of usability problems and solutions.

Miao Zhou: Document writing, Interview record.

Qingxiao Yuan: Participant A: facilitator. Participant B: record the interview answers. Document proofreading and writing. Specifically, Plan for iteration, majority writing in High-level reflections and written protocol except Questionnaires.

Shih-Chao Hung: Observer in two participants, document writing.