ABSTRACT

After the completion of the PRT website, usability testing must be conducted to gauge what improvements need to be made for users. By using a Google Form focusing on qualitative data from respondents, information on how the site can be improved was collected. By making a navigable and understandable site for users, our goal to have users learn the PRT system is more easily attainable. Data collected from this study will be used for improving the site and making a more welcoming website for users.

INTRODUCTION

The goal of our project was to create a website that taught students new to the Pittsburgh area how to effectively utilize the PRT system on their own. Rather than telling users exactly what to do, we developed tools and resources they would need to begin to independently travel around the Pittsburgh area. In this way, we could build our users' confidence and independence traveling through a new city. Additionally, by creating an environment assuming that users have no knowledge of the system and teaching it to them step-by-step without judgment, allows them to navigate the city safely and ask any questions they may have. Our team knows how scary it can be to learn public transport in a new city on your own, and we delivered a better way to understand the local system without guessing and getting lost as part of the process.

PROCESS DESCRIPTION

Our group split up the work based on our strengths. In our original scrum meeting, we discussed who had experience with coding in html and utilizing github for projects. This way, we could split up the work in a way that allowed everyone to work on the pieces they were most comfortable with. Of course, during scrum meetings we all had input on the work everyone was doing and made suggestions for improvement. We held scrum meetings at a local coffee shop during class time, the relaxed environment allowing for a less tense experience while doing our work.

While we did not establish a formal "group leader" role, as we worked on the project, those who were naturally more inclined to speak up and lead did find themselves in this position. Personally, I don't enjoy leading projects, and was relieved when my teammate, Will, took on that role and led discussions during scrum meetings. As there was not a formal structure, the meetings took on a more socratic form, with ideas being bounced around freely, allowing everyone to say their piece and collaborate together on the work and ideas. Being able to discuss and work through complications with various parts of the project, even ones I was not particularly involved in, resulted in everyone in the group having a deeper understanding of how the final deliverable was being constructed and how it operated.

Having others in the group act as a sounding board for my writing was helpful. When writing and editing, I usually do not notice errors or areas where confusion may arise, because it makes sense to me. Once others read my work, and asked clarifying

questions about my writing, I was able to identify where I had to improve my descriptions to make the documentation easier to understand for users. The difficulty with a sprint project such as this one, is that there is limited time when it comes to ruminating on your own writing. If I had more time, I would take a few days away from my writing before returning to it, allowing time to create space between me and my writing. Then, after forgetting most of the logic and creation process that was associated with the writing, returning and reading it with fresh eyes. With a sprint, I did not have this luxury, making the communication and proofreading from my teammates necessary for documentation that would translate well to users.

Overall, I had a positive experience working within my group and creating our website. Knowing my own capabilities with coding and html, I would have struggled to complete this project on my own, but having a relaxed space where my teammates and I could create something together without much pressure allowed us to create a quality project together.

USABILITY STUDY DESCRIPTION

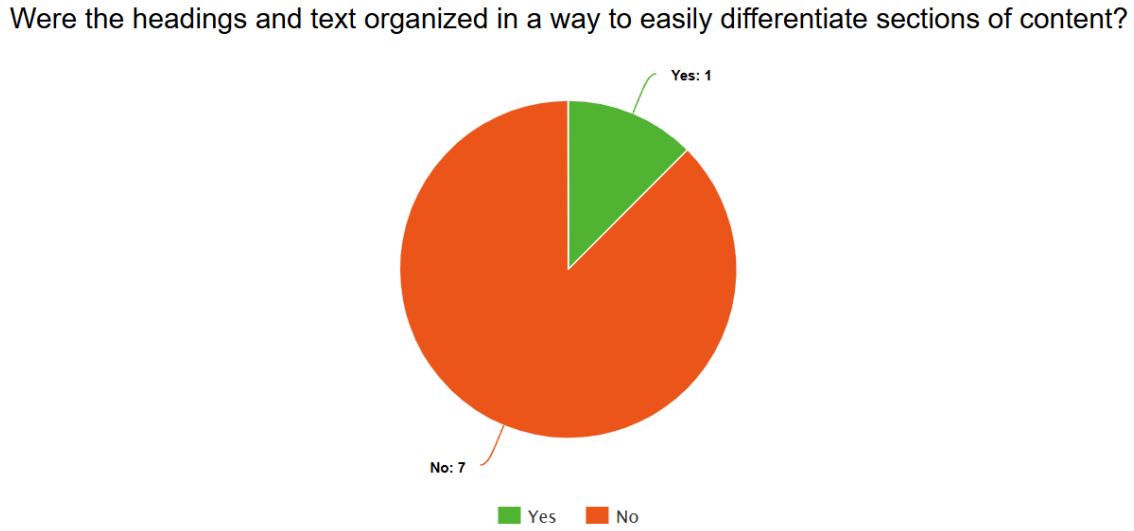
Due to the content of our website, and our wish to teach others how to effectively use the PRT system, I decided to create a usability study focused on qualitative data from users. The study asks questions about user's experience navigating through the site and if they were able to reach certain pages. Additionally, there are multiple questions which prompt them to provide a short answer, so they can provide more input on how to improve the website. I designed it in this way because I believed it was vital that users could find the information they needed on the site. If users cannot effectively locate this information and understand it, then the website has failed at teaching them how to use the PRT system. Through these more qualitative questions, I hoped to learn how to make the website design and descriptions more clear so users could learn the PRT without struggling with the website.

RESULTS AND RECOMMENDATIONS

My usability study had eight respondents, all of which were University of Pittsburgh students who had experience with the PRT system. I would have liked to receive data from individuals who were not familiar with the PRT system, but unfortunately I was unable to get a response from anyone outside of the Pittsburgh area.

The first question in the study asks "Were you able to navigate to all sections of the website (Buses, POGOH, Trolley)?", expecting a Yes or No answer. 100% of respondents said they were able to, but a couple noted in their response that the links on the left margin of the website were a bit small and easy to miss.

The most notable piece of data from the study revealed that the formatting of the site was difficult to follow for most respondents. Below is a chart showing that 87.5% of respondents found that the headings and text were not organized in a way that was easily differentiable.



Comments from users who said they were unable to easily differentiate sections of content described difficulty with seeing separation in the Q&A section and visual queues of where to begin reading content. One respondent commented “The style for headings and font was not consistent. I had a hard time figuring out what I should be reading.” This sentiment was echoed in other comments on how to approve the aesthetics of the website.

For an improved version of this deliverable, developers should focus on the formatting of content, particularly creating a clear distinction between headings and paragraphs of documentation. The foremost problem for most users is indentation on the large blocks of content, making reading them more intimidating than welcoming. By creating a more aesthetically pleasing website with better visual queues for eye tracking with users, the information will be more easily translatable for users.

APPENDIX

A. Project Deliverable:
https://huyhuynh27.github.io/PRT-Training-Manual/1.html

B. Project Repository:
https://github.com/HuyHuynh27/PRT-Training-Manual

C. Usability Survey:
https://forms.gle/3imHFepQMC9jAzfj8