During my learning journey of designing interaction prototypes in this module, I have come to realize the crucial importance of understanding the deep needs of users. When I was working on Project 1, I aimed to research the people who frequently visited Hoglands Park. However, my approach was rather ineffective. I recorded the types of people and birds in the park, observing where they were and what they were doing. For example, I noted that there were families with children playing on the lawn, joggers running along the paths, and shoppers returning home. I also observed different species of birds in various areas of the park. Later, upon analysis, I realized that the work I did in the park could hardly be called successful research because they could not provide a solid database for my further design. I was more like a passive observer, jotting down random details but didn't dig deeper. By simply observing, I couldn't understand the real needs of the people who frequented the park, so I failed to find a clear goal or direction for my interactive product. I didn't ask the families what kind of facilities or information they would like to know about the park. Nor did I inquire from the joggers about whether they would prefer a route-tracking feature on a website. Without these details, I cannot imagine what content my work can serve. At that time, I noticed that as a designer, I have to know my users, listen to them, and give immediate responses to design products that are truly expected. Thus, to understand user needs should be the first and foremost step in design.

Who's in here?



Research for Project 1

Design is a job not only of creating a visually attractive interface but also of building an effectively functional platform to serve the users and meet their needs. Alan Cooper et al (2014) argue in About Face 4: The Essentials of Interaction Design that designers should identify users' goals and understand their needs by doing qualitative and quantitative research, creating personas for users, and other possible methods. Therefore, proper user research must be done before the design starts. After realizing this, I conducted a PACT analysis as preliminary work for my Project 2. In designing this smartphone addiction prevention project for people over 21, I distributed 50 questionnaires and interviewed some representative samples. Then I summarized the information on People, Activities, Context, and Technologies of the potential users of my app from these research data. With the help of research findings and user feedback, I designed my app with a clear mind this time, choosing a soothing color scheme and making a minimalist interface.



Research for Project 2

Besides, the key to an effective and reasonable interaction prototype is whether it can fulfill the user's needs. According to the iterative design methodology, after planning and prototyping the product, designers should collect feedback from their users and refine their work to evolve it. Therefore, I tested the prototype after designing the medium-fidelity model to verify its quality and performance by asking my potential users how the product could give them better interactivity. My interviewees gave me a variety of advice, but some were contradictory to the other. To be more in line with the needs of the majority, I adopted the suggestions that appeared more frequently. This time, I paid more attention to emotional support in Project 2 and Project 3. I added cute companion characters to my products to enhance their soothing function. After making these changes I received more favorable comments from respondents about my work.



Companion Characters in Project 3



Color Scheme of Project 3

While I am still learning how to meet the users' needs in all aspects of my design, I have certainly enhanced my attention and perception of them in my past attempts. First, I have learned about the necessity of conducting user research and validating my design ideas for the interactive prototype with real users. Researching

users can provide me with a database and guidance for my later work. In my projects, I have used qualitative methods to collect the needs of my potential users as much as possible. Then I used the PACT model to analyze my data and relate their needs to the goals of my project so that it can be made suitable for the real world with appropriate technologies. In addition, I refine my work through frequent prototype testing and user interviews. By deepening my understanding of users, I have strengthened the emotional design in my work by adjusting the theme colors, the characters, and the worldview to meet their needs. These changes help my users to feel relaxed and delighted from the very first moment they open the interface.



PACT Analysis for Project 2

However, I also have many weaknesses in keeping up with user needs. The first is the lack of internal logic in conducting my preliminary research. I was not able to successfully determine which user groups were more important among all the interviewees in all the projects of this module. I made the same questionnaires and interviews for users of one project, ignoring their various preferences which might change in light of their gender, age, and characteristics. Also, I failed to target certain specific groups including the ones who need accessible design and the ones who may

be from different cultures. This makes it difficult to prioritize the most important opinions and user needs for my project and may also take my design direction off the right course even though I have a sufficient sample size.

Another skill I need to improve is the ability to capture and prioritize user pain points. For example, when I was prototyping for Project 2, my potential users gave me a range of suggestions in various directions, which were a bit overwhelming and confusing. I've found that during the iterative process, it's hard for me to grasp what's a basic need for users, what features can be tweaked to reap great results, and what settings will yield little effect. During my design and thinking, I need to follow certain frameworks to focus on the core user need and avoid wasting time and effort on a prototype design that did not meet the most important requirements.

In addition, my technical skills need to be upgraded as well. I need practical methods to turn ideas into action. If I cannot choose the proper technology and presentation approach, I may still fail to realize the user's needs through interactive modeling even if I have a correct understanding of them.

In my future design projects, I will begin with in-depth user research. I'm thinking about using the AEIOU framework (Activities, Environments, Interactions, Objects, Users) to systematically collect multidimensional information about users and scenarios to help me do user research more logically (Buchenau and Suri, 2000). Not only does this help me gather more comprehensive data, but it also allows me to make observations about specific groups of people. If I have the opportunity to re-do Project 1, I may focus only on the children in the park, recording their features, and what they are doing and talking with them under the permission of their parents. Besides, I will try different methods to better understand the goals and pain points related to interactivity for users. This will include both qualitative methods to collect information and preferences of the target users and some quantitative methods to track the tendency of user behavior and habits. Then I am going to prioritize the needs and pain points of users when analyzing the research data to uncover the true needs of the majority of them and design my interactive prototype more effectively. To address this issue, I might turn to the Kano model. The Kano model categorizes user needs into basic needs, performance needs, and excitement needs (Kano et al, 1984). They are the features that users think the product must have, the features that users want the product to have, and the features that are beyond users' expectations respectively. With this categorization, I can rationally arrange the design order of the features in the interaction prototype to satisfy the basic needs first, and then gradually bring the performance needs and excitement needs into my projects. For example, adding a leaderboard to my Project 2 would be a performance need while increasing the social features would be a basic need, so I would prioritize the latter in my work.

Last but not least, I will enhance my iterative design process by defining clearer goals and documenting all the changes that I have made for each iteration. I believe they can help me to understand the influence of changes on the satisfaction of my users better and help me to maintain consistency.

As I progress in my design studies and career, I will always prioritize the users and their requirements for interactive prototypes, ensuring that my products can contribute to a positive and efficient user experience.

Word count:1479

References

Buchenau, M. & Suri, J.F. (2000). 'Experience prototyping', Proceedings of the 3rd Conference on Designing Interactive Systems: Processes, Practices,

Methods, and Techniques, ACM, pp. 424-433. Available at: https://dl.acm.org/doi/book/10.1145/347642(Accessed 5 January 2025)

Cooper, A., Reimann, R., Cronin, D. & Noessel, C. (2014). About Face 4: The Essentials of Interaction Design. 4th ed. Wiley. Available at: https://fall14se.wordpress.com/wp-content/uploads/2017/04/alan-cooper-robertremann-david-cronin-christopher-noessel-about-face_-the-essentials-of-interaction-design-wiley-2014.pdf (Accessed 5 January 2025)

Kano, N., Seraku, N., Takahashi, F. & Tsuji, S. (1984). 'Attractive quality and must-be quality', Journal of the Japanese Society for Quality Control, 14(2), pp. 39-48. Available at: <u>https://www.jstage.jst.go.jp/browse/quality</u> (Accessed 5 January 2025)