## **Final Reflective Report**

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URL of my portfolio webspace: <a href="https://2025.macd.work/lg1u24/">https://2025.macd.work/lg1u24/</a>

In Semester 1, I completed three user-centered design projects: People Watching, Being Human, and APP360. These projects helped me progress from observing user behavior to designing functional features, integrating theory with practice. They also enhanced my understanding of design's core purpose, which is meeting user needs while creating emotional connections. This report follows the DIEP framework to reflect on my learning journey.

The first part involves describing the three projects. At the start of the semester, I worked on People Watching, observing behavior near Winchester Cathedral and noting how environment and time influenced actions, such as afternoon activity and evening calmness. These insights highlighted the dynamic nature of user needs. Building on this, I developed BeYou in Being Human, an app for teenagers to reduce screen time through rewards, mood tracking, and friendly competition. User testing emphasized the importance of accomplishment, shaping the app's core design. In APP360, I created MyFoodie for international students in the U.K., helping them manage food storage with reminders while addressing cultural adaptation and time management challenges.

These projects shaped my understanding of user-centered design. I learned that effective design focuses on deeply understanding user needs and providing intuitive solutions, rather than relying on flashy interfaces or complex features. The People Watching task offered my first hands-on experience with user behavior research, while designing BeYou and MyFoodie emphasized the importance of demand analysis. Together, they showed how to transform user insights into impactful design decisions.

During my observations of the crowds around Winchester Cathedral, I identified a clear connection between user behavior, time, and environmental factors. For instance, people were more inclined to participate in interactive activities such as taking photos or engaging in conversations during the afternoon, while in the evening, their actions reflected a greater focus on seeking security and emotional comfort. These findings subtly shaped the subsequent design features in my projects.

In the development of BeYou, for example, I incorporated a mood-tracking feature

that allowed users to monitor their screen usage habits in a straightforward manner. The app also rewarded users for completing tasks, reinforcing positive behavior. This reward system drew inspiration from early observations of behavioral patterns and insights gathered from surveys and online research. Specifically, it recognized the importance of the sense of accomplishment that adolescents experience after completing tasks. By addressing functional needs while simultaneously fostering emotional engagement, the design not only met practical objectives but also strengthened users' emotional connection to the app.

The design of MyFoodie further deepened my understanding of user needs. From a survey distributed to international students, I identified key pain points in their food management practices, primarily related to insufficient time management and the challenges of adapting to a new cultural environment. Many students admitted that they often stored food in refrigerators or containers but forgot how long it had been stored. Based on this feedback, I introduced a reminder function to help users manage their food before it expired. While the feature may appear simple, its underlying concept emphasizes the importance of efficiency and convenience in addressing user needs.

Through conversations with users and later user testing, I realized that design goes beyond solving practical problems. It should also work to reduce users' anxiety and foster a sense of control over their lives. By integrating functionality with emotional support, MyFoodie not only offers a practical solution for managing food but also provides users with a greater sense of confidence and stability in their daily routines. This process reshaped my perspective on user-centered design and highlighted the importance of addressing both functional and emotional aspects in creating meaningful experiences.

Theoretical support improved my design process. Norman's emotional design theory emphasized that user experience extends beyond functionality to build emotional connections. In BeYou, the reward system boosted engagement through positive feedback. For MyFoodie, I used the Five Elements of User Experience model to prioritize user needs, creating a practical and intuitive design aligned with their challenges.

With the completion of the project, I have developed a personal evaluation of the three projects I undertook. This learning experience has allowed me to achieve notable progress in needs analysis, emotional design, and systematic design thinking. At the same time, it has revealed my shortcomings in cultural adaptation

and data analysis. Through these three projects, I have gained a deeper understanding of user-demand-driven design, which has not only enhanced my technical skills but also inspired a shift in my approach to thinking and problem-solving.

My ability to analyze requirements has improved significantly throughout this process. Starting with observation, moving to interviews and questionnaires, and finally organizing user feedback from testing, I learned how to translate user behavior into concrete design requirements. Observing users around Winchester Cathedral helped me identify patterns in their behavior, such as how mood changes at different times of the day indirectly influenced the direction of BeYou's design. I came to understand that emotional states and a sense of accomplishment play a crucial role in driving behavior change, especially for teenagers managing screen time. To address this, I implemented task incentives and reward feedback functions in BeYou, helping users develop better screen management habits by gradually achieving goals. This also provided positive psychological reinforcement and reduced anxiety related to social media.

Similarly, in the MyFoodie project, I conducted in-depth research to pinpoint the challenges faced by international students in the UK. Issues such as poor time management and limited knowledge about food storage emerged as key pain points. Based on these findings, I designed app notifications to remind users to act before their food expired. This feature was aimed at reducing waste while enhancing efficiency in food management. These experiences not only allowed me to better understand the needs of diverse user groups but also reinforced the importance of aligning design solutions with real-life challenges.

Secondly, my ability to incorporate emotional design has improved significantly. In BeYou, the reward system was not just a functional feature but a way to enhance user engagement by adding emotional value. According to Norman's emotional design theory, the emotional experience users have while interacting with a product is just as important as its functionality. When users feel their actions are recognized and rewarded, their loyalty and willingness to use the product increase noticeably. This theory also guided my work on MyFoodie. By simplifying the reminder feature and using friendly prompts, I aimed to not only address practical issues but also reduce the anxiety caused by time constraints, ultimately building user trust in the app.

This learning experience, however, also revealed areas where I need to improve.

One of the key challenges is cultural adaptation. While I considered the shared needs of international students in MyFoodie, I did not fully explore how cultural differences impact food management practices. For instance, some cultures prioritize food freshness over expiration dates. Overlooking these details could make the design less universal for diverse users. This realization has highlighted the importance of researching cultural backgrounds more thoroughly in future projects. Including culturally adaptive options in design features could improve both the diversity and relevance of the product.

Another area for growth is the use of quantitative data. My current user research methods rely heavily on interviews, observations, and small-scale surveys. While these qualitative approaches offer deep insights, they lack the support of quantitative data. For example, in designing the reminder feature for MyFoodie, broader surveys could have helped gather user preferences for different reminder formats. Data analysis could also validate the prioritization of features, making design decisions more precise. I now understand that balancing qualitative and quantitative research is essential for creating more solid and well-informed designs.

Lastly, achieving the right balance between feature complexity and user experience is something I need to refine. The task incentive system in BeYou was comprehensive, but for some users, it felt overly complicated. This has made me more aware of the need to simplify workflows and test usability extensively during development. According to the Five Elements of User Experience model, every step of design, from strategy to visual elements, must align with the user's cognitive load and habits. Exploring this balance further will be a critical focus for my future work.

To further improve my design skills, I plan to focus on several key areas. In the short term, I aim to enhance my ability to conduct quantitative research by learning tools like Google Forms, providing more reliable data to support design decisions. I also plan to deepen my knowledge of design software such as Figma and Adobe XD to streamline workflows and boost efficiency. In the medium and long term, I intend to participate in more international projects to explore how cultural differences shape user needs, allowing me to create more adaptable features. Additionally, I hope to continue studying emotional design applications in fields like education and healthcare, exploring how design can provide users with greater support and assistance. To make my work more practical, I also plan to learn basic development skills, improving my understanding of technical feasibility and ensuring my designs are both creative and actionable.

Overall, this experience has enhanced my design skills by blending theory with practice and reshaped my understanding of design. I have learned to integrate functionality, emotional value, user behavior, and cultural context to refine my work. This perspective deepened my grasp of "user-driven design," preparing me to address challenges and build a solid foundation for future projects. I am confident that with ongoing improvement, I can create more valuable solutions for users.