

## **DIEP-Prototyping and testing in project**

[Dongyu Wang](https://2025.macd.work/dw1u24/) <https://2025.macd.work/dw1u24/>

In my past app design experience, I often underestimated the importance of prototyping and testing. My attention was mainly focused on achieving a perfect result, because these steps seemed to be auxiliary and merely tools to improve the results. I thought that their impact on the final product was limited. However, through my learning journey and practical projects, I gradually realized that prototyping and testing are crucial to ensuring functionality, user satisfaction, and overall design quality.

### **Description: Ignoring prototyping and testing in Project 2**

For example, in Project 2 (Being Human), I ignored the importance of early prototyping and testing. Instead of spending too much time developing low-fidelity prototypes, I sketched out several key parts of the app on paper and then quickly started creating digital wireframes and high-fidelity prototypes. In my past learning career, I often imagined the final design completely in my mind and executed it without much iteration. In addition, I did not involve users in the testing process in the form of interviews until the high-fidelity prototype was completed.

I think there are many problems with my previous workflow. First, the lack of early user feedback means that my design choices do not meet the needs of users well. In addition, the functionality of the app suffered because the flow and interactions were not as seamless as they should be, and the design was not fully realized. Moreover, the user flow lacked coherence, and the features did not fully meet the expected goals. These shortcomings highlighted the limitations of bypassing prototyping and testing, prompting me to reconsider my approach in future projects.

### **Interpretation: Learning from the mistakes in Project 3**

Recognizing these issues, I adopted a different strategy in Project 3 (App360). In this project, I spent more time creating low-fidelity prototypes and incorporating user feedback earlier in the process. In doing so, I found that low-fidelity prototyping is not only a preliminary step, but also an important tool for clarifying design ideas. Sketching initial prototypes allowed me to more effectively visualize the connections between pages and ensure that each screen had a clear purpose. While sketching, I was also able to think through vague design ideas more fully. Although it took a lot of time in the early stages, it saved me from having to rethink and even overturn the results when they were produced.

For example, in App360, I created sketches of multiple potential layouts before committing to a digital format. This iterative process helped me identify flaws in the design logic and improve the overall structure. In addition to some key pages, I added some pop-ups and long slide-down pages to make the design flow complete and as close to the post-production design as possible. Importantly, I conducted simple user tests after developing the low-fi. These tests provided valuable insights into user behavior, preferences, and potential pain points. I realized that incorporating feedback early

not only made the application more user-centric but also eased the transition to high-fi prototypes. One specific insight was the importance of early user feedback in solving potential usability issues. For example, users highlighted that certain navigation elements were not intuitive, which I could adjust in the next iteration. This iterative process led to a final design that was more functional, coherent, and in line with user expectations.

By shifting my focus in Project 3 to low-fidelity prototypes, I experienced firsthand how they clarified my design thinking and allowed for early feedback. According to Nielsen (1993), iterative evaluation is the cornerstone of user-centered design (UCD), emphasizing the need for continuous testing with real users to ensure that the design meets their needs. Similarly, Snyder (2003) argues that low-fidelity prototypes are an inexpensive yet powerful tool that encourages creativity and collaboration. These views reflect my own experience that sketching and iterating on initial ideas not only improves the usability of an application but also promotes innovation.

### **Evaluation: The Value of Prototyping and Testing**

From these experiences, I began to gain a deep appreciation for the role of prototyping and testing in app design. Prototyping, especially in the low-fidelity stage, is extremely valuable for building ideas and defining the purpose of each element in the design. It prevents designers from obsessing over visuals and encourages me to focus on functionality and usability. In addition, it facilitates communication between designers and users because concrete representations of ideas are easier to discuss and criticize, making problems and areas for improvement in the design more obvious.

Testing, on the other hand, is an important validation tool. By engaging with users early and often, designers can discover and resolve issues before they become deeply embedded in the design. For example, feedback from early testing of App360 allowed me to improve navigation paths, streamline user flows, and improve the overall usability of the app. This not only saved time and resources but also ensured that the final product met the intended goals more effectively.

Looking back on these experiences, I also gained a deeper understanding of the iterative nature of design. Prototyping and testing are not linear steps, but rather a cyclical process that continuously informs and improves the design. They encourage designers to embrace experimentation, learn from failure, and adjust their approach based on evidence and feedback.

The transition from Project 2 to Project 3 fundamentally changed my understanding of the design process. Gould and Lewis (1985) stressed the importance of iterative design in solving usability problems through continuous prototyping and testing. This aligns with my understanding that early feedback loops can significantly enhance functionality and user satisfaction. Additionally, Norman (2013) stressed the role of empathy in design, which resonated with my efforts to incorporate user insights into every stage of development. These experiences deepened my understanding of an iterative and user-centered approach and marked a turning point in my professional growth.

### **Plans: Apply Insights to Future Projects**

Going forward, I plan to make prototyping and testing an integral part of my design workflow. In future projects, I will allocate more time and resources to developing low-fidelity prototypes and conducting user testing at various stages of the design process. This will ensure that my designs are not only beautiful, but also functional and user centered.

One specific strategy I plan to employ is to use paper prototypes and rapid iterations in the early stages of design. This will allow me to quickly explore multiple ideas and identify the most promising direction before using digital tools. Additionally, I will conduct user participation testing throughout the design process, seeking their input on everything from basic concepts to high-fidelity prototypes. Actively seeking user feedback wherever it is needed will help me align my designs with user needs and expectations while minimizing the risk of making significant revisions later.

In addition, I aim to incorporate these practices into my professional development as an interaction designer. Through prototyping and testing, I can deepen my understanding of user-centered design principles and improve my ability to create impactful solutions. I feel this is important to launch products that meet market needs and are loved by users. I believe this is essential if one hopes to become a professional and capable designer.

As an aspiring interaction designer, I recognize the responsibility to prioritize inclusivity, accessibility, and sustainability in my work, and to design that positively contributes to society. Prototyping and testing are central to this mission as they ensure that solutions are grounded in the real world and address real user challenges. My goal is to use these practices to design tools that enhance accessibility, promote inclusion, and improve quality of life. As Norman (2013) emphasizes, he emphasizes the importance of understanding the user's perspective. I hope to ensure that my designs are not only functional, but also meet the various needs of users, ultimately contributing to a more equitable and innovative society.

In summary, my experiences at Being Human and App360 have profoundly shaped my understanding of prototyping and testing in app design. These steps, which I once viewed as secondary, have proven to be essential in creating functional, user-centered, and impactful designs. Through these practices, I have not only improved my technical skills but also gained a deeper understanding of the iterative nature of design. To become an excellent interaction designer, I am committed to deeply integrating prototyping and testing into my workflow to ensure that my designs are both meaningful and efficient. I hope that I can continuously improve my professional abilities, design works that can truly improve people's lives, realize my career dreams, and enjoy the fun of creation and growth brought by design.

## **Reference**

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