Testing in Design Thinking

Testing is a crucial part of the design thinking process, UX teams usually test high-fidelity prototypes to validate the design. It helps to explore possible flaws, gain valuable insights and make amends if needed.

A. What is Testing?

Testing phase is when the final solution of a product is tested on a full scale. It helps to evaluate whether a solution might or might not work. The prototype that's considered best after considering the feedback from customers and end-users is implemented. The Testing stage can provide both positive and negative results, depending on the success and failure of the Prototype stage.

Testing might also lead to repeating the Design Thinking process if the end-user faces usability issues with using the solution provided. It provides valuable insights that allow the designer to rework the problem definition at hand and create a new solution that can better empathize with the end-user.

Thus, testing is a repetitive process whereby the prototype will have to be tested repeatedly to iterate the design, affirming the saying in UX design *'test early, test often'.*

B. Why is Testing integral to the Design Thinking Process?

The Testing Phase has an impact on all the previous stages of the Design Thinking Process. Before the Testing Stage is conducted, the envisioned product works on a designer's presumption. While this envisioned product may have sufficient research and empathy behind it, there is a possibility of crucial information being overlooked or of designer bias.

UX designers are able to empathise with end-users through testing. It also provides useful information that aids in human-centered solutions to problems by generating newer product solutions. Conducting repeated testing sessions will provide the designer with real-time valuable feedback through the observation of real users and not through assumptions.

The Testing stage leads to the iteration of a prototype. It generates user feedback that is particular to a prototype, and this feedback, in turn, deepens the understanding of end-users. Testing helps to bring all the preceding stages together and provide a comprehensive solution that may require adjustments or is ready for large-scale execution.

C. How is User-Testing conducted?

The Testing stage when conducted in an ideal setting (wherein a user is more likely to interact with the product) does give ideal results, it isn't always possible to do so. Thus, designers can opt to get users to perform a task wherein they're made to interact with the prototype. The idea behind conducting the testing stage on a prototype is to see how end-users might interact with a product in real-time. However, in order to achieve the best possible results of a test, the following steps can be considered -

- ***Let end-users analyse multiple prototypes -*** By creating multiple prototypes with different variables, end-users are able to compare the prototypes and choose the one that suits their usability needs best. Providing multiple prototypes makes it easier for users to compare and explain why they prefer one prototype over another.
- ***Allow end-users to experience the prototypes in real-time*** - Observe how users interact with the product. Instead of over-explaining what the user can expect from the product, let the user figure out how to interact with the product. This will show whether the prototype has usability issues or is easy to work with.
- ***Encourage users to be vocal through their experience -*** As users explore and interact with the prototype, encourage them to talk about what they feel when using the product. This will provide valuable insight into understanding if there are minor inconveniences present in the product that may have gone unnoticed otherwise.
- ***Observe while the user interacts with the prototype -*** By noticing how the end-user correctly or incorrectly interacts with the prototype, valuable insight can be gained. As this is a process of testing the prototype, observing users in real-time can help to understand how high or low the prototype ranks on usability.
- ***Have follow-up queries*** - By questioning what the user is trying to say, designers are able to let go of their biases of the product. Even if you believe you've understood what the user is conveying, asking follow-up questions will give better clarity on the issues being faced during interaction with the prototype.

D. Problem-solving using User Testing

Testing along with Prototyping is an integral part of the Design Thinking process. User testing enables designers to create user-centric products. By testing the ideas often and from the initial stages, designers are able to identify usability issues that might crop up in case the product is taken to market. Some of the key points in which user testing is a necessity to Design Thinking are -

- ***It saves both money and time -*** It ensures that the product being released is the most bug-free, user-friendly product possible by discovering faults and usability concerns early on. What happens if the testing step is bypassed in order to develop the product as quickly as possible? After the product is out, designers will have to spend a lot of time and money fixing it. This is not only stressful, but it's also terrible for business.

- *It helps to reveal unexpected insights* **-** There are always new insights to be discovered, no matter how extensive the initial user research was. Effective usability testing questions will draw attention to issues that would otherwise go unnoticed.
- *It helps provide enhanced user satisfaction* - The user always comes first in Design Thinking. By getting first-hand user feedback, designers can make more educated design decisions thus enhancing user happiness. Being a designer, constant prototyping and testing help keep the focus on the user.

Conclusion

In Testing, instead of assuming that the prototypes are correct, the user-centered design supports in creating services and enhancements that the end-users require. The usability studies from the Testing stage validate the work and ideas completed by designers in previous stages of the design thinking process. Testing can also expose design flaws, leading UX teams to return to the Empathy phase with useful knowledge to start over.

UX designers have a major impact on how designs take shape, the consequences of their usage, and how users experience them. Design Thinking is an iterative process, so there isn't a fixed sequential pattern of following the different phases. The end goal for a designer is to gain a deeper and better understanding of users' requirements and use this knowledge to create an optimal solution that can provide solutions to address user issues.

If end-users feel satisfied with the prototype, then the Design Thinking process concludes here. However, if there are usability issues and other feedback that requires looking into, then the complete process is conducted again. Once the end product is able to satisfy the desirability, viability and feasibility, it is considered to be an ideal end to the Design Thinking process.