

FINAL REFLECTION: DESIGN AS A LEARNING PROCESS

Final Reflection: Design as a Learning Process

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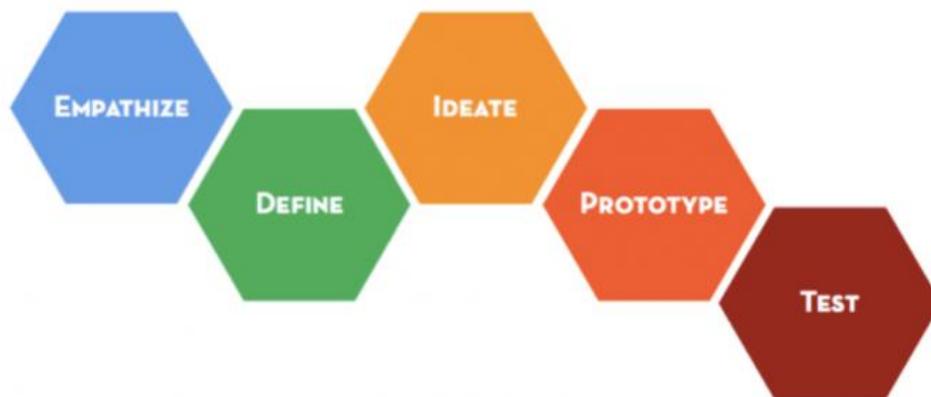
In reflecting back on a semester of creativity, possibilities, challenges and enormous insight, the underlying theme of the course for me was that design, is quite simply, a learning process. While our goal of design may be to provide a product or service to resolve an issue or problem, whether great or small, we are learning throughout the process, both about design, the users and ourselves. As I believe the structure of CEP 817 provided an excellent understanding of each phase within the Stanford Design Model, I have tailored my own reflection to analyze the learning (both my own and the concept of learning) that occurs within each stage of the design model. I personally found the lectures, labs and problems of practice the most valuable components of the course; we were able to digest the material in each phase, and then immediately exercise our understanding both in a creative manner (labs) and a beneficial, ongoing project to see how each of the phases interweave with one another. With that being said, below is an overview of design as a learning process, with the learning that occurs within each phase highlighted. I have also created a modification of the Stanford Design Model that embodies my reflection on the model and learning in relation to design.

Design as a Learning Process

As mentioned in my problem of practice recap, when examining the design process as a whole, foundationally design is learning. The art of identifying an issue(s) with a large scale impact is the first step in learning how to resolve this issue. You must be able to identify an issue, weakness or area for growth before you can solve the puzzle. This likely will be a rather vague issue, in which you don't know why or how it is occurring, but you know that through design you can improve or resolve the issue. The design process offers the opportunity to not only learn about the issue at hand, but also those that the issue impacts, and yourself as a designer; we can look in the mirror and witness ourselves grow as designers as we get a better

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understanding of each stage within the Stanford Design Model. Rather than just focusing on the issue and diving right in with a prototype to test, the Stanford Design Model allows designers to understand the reasons for the design, with emphasis on the “whys” the design is needed, “how” the design will be structured, and “what” is the ultimate purpose of the design. Through this process we are motivated by what the next step will bring, and what our minds will think of. There are no boundaries in design and there are no limits to what we will learn. Below is a modification of the Stanford Design Model in which I have placed learning as the nucleus of the model, for which each stage revolves around. We start with the original issue or question, and proceed to the empathy stage, much like the current model. However, I believe that in the model below, we have a two-way channel between each phase, with the ability to go back and re-assess the phase, to learn more about the “why” if our understanding or outcomes do not meet expectations. With learning also at the center of the model, we acknowledge the key concept of design, as we are learning about the users, the design techniques and ourselves throughout the design process.



Original Stanford Design Model (credit: Stanford d.School)

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My Modification to the Stanford Design Model (working clockwise)

Similar to the course structure for the semester, below I have outlined each of the design phases, with the emphasis being placed on the learning that takes place within each stage; essentially, the key components that I took from each phase of the course.

E M P A T H I Z E

In the empathy phase, our main goal is to understand the purpose of the design, as we focus on the 'who' and 'why'. As designers we are learning about the impacted population and target audience for our design, while also understanding the value of a proposed solution for which we will craft over the next design phases. Through this stage, we are learning how to empathize with the target audience, in which some situations we may not have anything in common before meeting this group. We are learning about their struggles and challenges, for

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which our design strives to address. We are also learning about ourselves as designers as we implement different empathy techniques (observation, interviews, perspective taking, and research, among others) to understand which methods work best for us individually as designers, and which methods work for particular situations or populations. The empathy stage allows us to understand the needs of the target audience of our design, while also allowing the designer to try different techniques to identify the root issue and how to further define the problem at hand. From putting these concepts into practice, I believe I have a better sense of not only working with potential users, but also interpersonal interactions in general. I now take a step back and try to understand their perspective(s) before jumping to conclusions, and I believe this approach will help tremendously in my future designs; I will listen to the needs and concerns before moving directly to a prototype when an issue is identified.



As we transition to the define stage, we have identified the foundation for the design with emphasis on the ‘why’, ‘who’ and ‘what’ as it relates to the issue(s) we aim to resolve. Our goal in the definition phase is to dissect what we have learned in the empathy phase, and examine the different variables and components of the problem at hand. The Stanford Design Model states “the define mode is when you unpack and synthesize your empathy findings into compelling needs and insights, and scope a specific and meaningful challenge” (p.2). We continue to learn about our problem and our users, while also trying to further assess our own point-of-view in the attempt to provide direction to our design. Ideally, our design takes focus on the users’ needs and in combination with our research on the problem provides a path for design possibilities to emerge in the ideation stage. I believe this stage can be one of the most difficult stages to master,

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as you are gathering information from the empathy stage and combining this knowledge with your own research in attempting to pinpoint the issue, for which the rest of the design will follow. The ‘why’ is so critical to ensure you unwrap each layer in making sure the root cause is identified. I believe the use of the ‘5 Whys’ exercise is a valuable tool in getting to the heart of the problem, as designers can often stop at the first ‘why’ for which they believe they have a solution. But the initial ‘why’ may only be a shadow of the underlying issue, which is only identified through deeper analysis.



The transition from focus in the define stage shifts to flaring as we move to the ideation stage. While defining the problem provided a focal point for the design, in the ideation stage the designer aims to generate a vast amount of ideas through flaring techniques. The possibilities for the design should not be limited in this stage, allowing the designer to connect unrelated dots and attempt to link radical concepts that are otherwise considered dissimilar. The learning that occurs in this stage is as much about the designer himself as it is the design. If the designer can be comfortable with generating numerous ideas and ‘coloring outside the lines’ then the possibilities are endless. In the ideation stage we are also encouraged to steal ideas and/or concepts from other areas that may seem unrelated to our issue. Jim Jarmusch states “nothing is original. Steal from anywhere that resonates with inspiration or fuels your imagination...Select only things to steal from that speak directly to your soul. If you do this, your work (and theft) will be authentic. Authenticity is invaluable; originality is non-existent” (as cited in CEP 817 Ideate lecture, 2015). While our design will be ‘authentic’, the tools and techniques used to craft a prototype will rarely be new ideas. As designers we must become comfortable with these flaring techniques and

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attempts to link the unconnected concepts in developing a solution (and connection) to our original issue. I believe this phase is truly the most creative and original phase for which the designer can ignore the boundaries and become comfortable with failure. We can generate endless ideas that may eventually fizzle down the road, but the ability to think outside the box also allows us to excel, when otherwise we would not challenge ourselves as designers.



The prototype phase of the Stanford Design Model allows the designer to put the ideas into action with the creation of a very rough prototype, to which the designer can mold prior to testing. The key to the prototype is to design a product or service that reflects back on what has been learned in the empathy stage and then takes on development found in the define and ideation phases. The physical form of the product allows both the designer and target audience the ability to interact with your design. In addition, the act of prototyping allows the designers to “learn by doing”, essentially jumping into developing your design and learning from the process itself (Henriksen, Good, & Richardson, 2015). Failure may be a common theme in this phase, but the key is to focus on the purpose of failure. Either your prototype is successful, or you fail and learn how to modify the product/service, relating back to the ‘learning by doing’ concept. The only way to learn is to try, and even if we fail, we must remember that we have learned something by failing. This failure is just a step towards an improved design. Lastly, the prototype phase offers the opportunity to empathize again with the original users and learn even more about your target audience. The goal of the prototype you are developing is to meet the needs identified in the empathy phase, so bringing the users back in for review (and then testing) will allow you to learn more about your users.

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Building off the momentum from the prototype stage, the testing stage really allows the designer to test the product with the intended users. The feedback from the testing stage is invaluable as we continue to learn about our users and our design. The testing phase is by no means the end or final phase, as the feedback we gather from this stage will allow us to cycle back to previous stages to refine the prototype or even further define the issue at hand. We learn an immense volume of information in the testing stage, primarily about our users and the usability of the design. Testing should also be viewed as a form of formative assessment by the designer. The testing phase provides the opportunity to test the project in relation to the original issue and key users, learn what works and what doesn't, and then make the modifications as we move forward. One key point that I've taken away from the designer perspective in the testing phase is to never assume this is the final stage of your project; use the testing phase as a stepping stone for improvement. We may fail, fail often or fail ugly in the testing phase, but that doesn't mean our whole design has failed. We can re-evaluate the project and even step back to the define phase and adjust our point of view if need be. But do not link failure to any negative emotions as this failure is a learning step towards growth!

As noted over the semester, design is a learning process, in which each phase offers learning opportunities about the users, the issue at hand and ourselves as designers. We must not only understand the "who" and "why" of the design, but also challenge ourselves as designers to go beyond the current possibilities, and let ourselves encounter failure. We will not be perfect on our first attempt and we should strive for feedback as much as a polished product in the first few project iterations. Design is all about learning: learning about the users' needs, learning about the techniques to develop and prototype a design, and then learning about ourselves in how we relate

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to the users, how we interweave their needs in our design techniques, and how we learn from the design process. Design is by no means easy, but it also does not have to be an uphill battle. By following the Stanford Design Model and being comfortable with failure, there are always opportunities for growth. Hold your head high, let the ideas flow and never give up: trust me, the design process is an exciting journey!

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