

## **The Design Process- My Reflection**

“Reflection is something that shows the effect, existence, or character of something else

(“Definition Of REFLECTION”).

As I reflect on my semester of work regarding my Problem of Practice, I am able to see the effects of my research and design choices. At the beginning of this semester, when I learned that we would be working through the design process toward a solution to our Practice Problem, I was a little overwhelmed. It was hard for me to visualize or even comprehend how I could develop a solution that was viable and would be successful in one semester. To be fair, we were never told that we had to create a finished solution. Instead we were instructed to engage in the different steps of the design process which was to enhance our understanding. However, when I chose my Practice Problem of creating a professional development program for my Veterinary Technology Program teaching faculty specifically designed to help with technology integration, I was hopeful that my end product would be something that I could actually put into action. I had previously done some research with this audience on this subject and felt like I had a solid base to build on during the semester.

We started out the semester exploring a framework that was to support our design thinking process, The Stanford Design Thinking Model. The model was created to be a “toolkit” for support and in following the methods described by the model, a designer can engage in a “human-centered design process”. A “human-centered design process” is one that focuses on the people who will be using the product. “As a human-centered designer you need to understand the people for whom you are designing” (Plattner, 2016). Although this idea seems like an obvious one, we as designers often forget that it is not ourselves that we are designing

for. We are designing for an audience, usually a very specific one, and we need to know and understand that audience before we can design a useful product.

Embarking on this design experience was going to be hard for me - I knew that going in. I am a control freak, and being freely creative is difficult for me. For example, if I am told that I need to design something to encourage creative thinking in my students or I am to develop an innovative new something, I panic and the creative corners of my brain shut down making the assignment very difficult for me. However, when I am given a framework or step by step process or even suggestions of how to navigate and accomplish the task, it somehow allows me to be more free with my thinking. So, you can image how excited I was to learn about the progressive framework outlined by The Stanford Design Thinking Model. The model uses modes or mindsets which the designer embodies in order to engage in a design process that is focused on the end users. Each mode provides an opportunity to gather valuable information and insight for the designer to utilize as they create and develop.

The first mode, "empathize", is the foundation of the "human-centered" design process. This mode charges the designer with observing and engaging their audience in order to uncover needs, discover emotions that guide behaviors, and reveal insights that will help the designer see the practice problem from their users perspective. To help us understand perspective, the goal of our first lab assignment was to record a short video that sought to capture the world as seen/heard from the point of view of a character or persona we chose. I chose to take on the perspective of one of my students sitting in class during a group presentation. As I sat in the back of the class it was easy to feel the anxiety and pressure that accompanied the situation, and the exercise was very eye opening for me. I was once in the very same position as my students, but through this exercise it became clear that I have lost perspective in the several years it has been since I was a student. I concluded that when I design classroom activities I

am remembering the student experience differently than how my students are currently experiencing it. They have individual lives and events happening in their lives which contribute and shape their personal perspective in any given situation. Seeing and understanding their perspective puts me in a better position to design successfully for them.

To further enter the “empathize” mode we were to engage with our Problem of Practice audience. We were to learn about them and gain insight into their thoughts, fears, and hopes in regards to our problem and the solution. In order to gain a deeper understanding, I sat down with a faculty member that has been instructing in the veterinary technology program for 20 years and is a self proclaimed “technology novice”. As I interviewed her, I learned of her feelings of inadequacy when it comes to technology and how these feelings sprang from a frustration at home where her tech savvy husband and son often take over when she needs assistance with technology. Through our conversation I learned that she feels most troubleshooting wizards are unhelpful due to the fact that they only explain certain aspects of the technology and often assume that the user understands more of the technology than they actually do. This insight became a huge focus for my entire design process as I was going to be designing a program that would be taking the place of troubleshooting wizards and would be utilized by users with varying technology competencies.

By engaging with just one of the seven faculty members that make up my community of practice, I was able to gather vital information regarding my practice problem. By experiencing some of the current technology programs through this faculty member’s perspective and understanding her apprehensions and fears regarding technology, and most importantly why she felt that way, I was afforded an understanding of what her needs may be when designing my program. This exercise was very illuminating and I can only imagine the wealth of

information I could gain about my student's needs for the design of a course or assignment. Although it may not be practical to interview all of my students, I plan on implementing some discovery activities and reflection projects into my courses in order to gather this vital personalized information.

As we moved forward through the Stanford Design Thinking Model I was able to more specifically define my Problem of Practice by examining it and its complexities on a deeper level. By examining what I learned about my users and their needs as well as the context or variables that may be affecting their behaviors, I was able to further focus my Problem of Practice definition to reflect those factors.

My technology integration program needed to be adaptable to the faculty's individual needs when it comes to their personal knowledge and comfort level with the technology, adaptable to their individual needs for continued support once utilizing a technology and adaptable to their personal knowledge of new technologies and their current uses. The program will also need to manage how and when the faculty can integrate the technologies into their individual courses and any existing practices. Although this mode in the framework originally felt tedious and unnecessary, having a solid and detailed definition and problem statement helped me focus the rest of the modes to that definition and statement. Even though the "define" mode was one that I had to force myself to work through, I utilized the product of this mode during those that followed. Proving that although this may be a step that I would likely skip when designing for my students, it is a vital step to the rest of the process.

Now that I had a solid definition, it was time to try and come up with some solutions to my Practice Problem. According to The Stanford Design Thinking Model, "You ideate in order to transition from identifying problems into exploring solutions for your users" (Plattner, 2016,

pp.3). At this point in the process I had my defined practice problem as well as a few other problems that required solutions. I was struggling with the format and how I could make it adaptable to each user, and whether I needed to have live support available.

I was considering a digital format of some sort that could be accessed by the users and explored at their own pace, but I was struggling with how it could be made flexible enough for those who need a little extra assistance getting to know the technologies and those more “tech savvy” users. Also I needed to devise a way to provide support without forcing an in-service type meeting on those users that didn’t require it. I took my Practice Problem and these other issues to our course discussion board as well as a brainstorming meeting with a few of my end users.

My fellow course mates gave me some great feedback on the discussion board, helping me work through how I might incorporate live support, as well as suggesting some ideas about how I could create excitement about the program, such as calling the program “Teaching Excellence”. I also obtained very helpful information in the brainstorming session with my faculty members. Before we started I explained my practice problem and the initial solutions that I had already considered. I did this to hopefully allow the brainstorming session to be a little more focused. Because the group was made aware of some possible solutions, they began the brainstorming session by building off of those ideas. Each member gave personalized suggestions and voiced issues they had with other’s suggestions. Participating in this brainstorming session opened my eyes to what type of flexibility the program was going to need and the amount and type of support the users felt they would need. So, although the brainstorming session didn’t produce the perfect “one-stop” solution that addressed all of my problems, I did come away with a some clear solution ideas.

The “ideate” mode is one that is often overlooked in regards to my instructing. It is very easy to get stuck using a format or program that has been used before, or fail to deviate from the common path because it seems like the only path. However, after engaging in the “ideate” mode during this project, I believe a multitude of diverse ideas and solutions can emerge from this brainstorming mode, which could breath new life into my instruction.

During the next phase of the process I synthesized all of the information and ideas that were generated during the “ideate” mode and decided that my program was going to be a digital newsletter to be e-mailed out monthly to my audience. I liked the idea of the program coming to the user instead of the user having to go to the program, and sending the informational newsletter monthly negated the need for a mandatory monthly in-service type meeting.

To address the flexibility required by the users, the newsletter would include a few brief videos introducing some new technologies and how they are utilized. Links to the website’s of each technology would also be included allowing each user to explore any of the technologies further if they wanted to. Finally, I included an option to sign up for a follow up meeting that would involve live support and give users an opportunity to ask questions, work through troubleshooting issues or explore integration of the technologies into their courses. This optional meeting would allow for my users to get the type of support that they as an individual needed when it came to these technologies.

Next, we were tasked with creating a prototype of our solution. A prototype being some physical manifestation of our ideas. The Stanford Design Thinking Model states that, “A prototype can be anything that takes a physical form – be it a wall of post-it notes, a role-playing activity, a space, an object, an interface, or even a storyboard” (Plattner, 2016, pp. 4). To help us wrap our minds around this process we had an assignment where we had to come up with a prototype that

represented a “big idea” from a provided list. The ideas were very vague and I had a really difficult time coming up with something that would represent my chosen “big idea”, but once I worked through the prototyping activity I felt that I understood this mode a little better. A prototype doesn’t have to be a polished example of your solution, although towards the end of your design process, it may be - most importantly a prototype is something that allows your users to interact with and explore your concepts. At this point in the course I had a pretty solid solution worked out and I wanted to create a realistic prototype of my final solution, so I created a prototype of my digital newsletter.

To create the newsletter I used [www.Smores.com](http://www.Smores.com), which is a website that allows you to create flyers, send them to contacts and track the way your flyer is used. I had used this website before and felt comfortable using it for this project. I decided that I wanted the newsletter to look and work as authentically as possible, so I found 3 videos for technologies that I personally had used before and knew would be something the faculty might be interested in using. I ran across the website [www.emergingedtech.com](http://www.emergingedtech.com) where they have created 3 minute videos that offer quick introductions to different tech tools. I appreciated that the videos were so short. It seemed to be an unintimidating length and I thought this would allow for the users to view all 3 videos in a short period of time. After adding each video to the newsletter, I included a link to that technology’s website where the user could explore and discover all that the technology can do. Finally, Smores.com allows you to add an “event sign up” to the flyer, so I took advantage of this feature and created a fictitious support meeting that was scheduled for a few weeks in the future. I deliberated about adding this to the newsletter because I did not want to confuse my users by adding something that wasn’t really going to happen, but I ultimately decided to add it so it would be clear that my professional development program included the newsletter with

introductory videos, links for extended exploration as well as a follow up meeting with live support to help with individual needs.

I was conscious of the need for the format and design to be simple and easy to navigate, so I didn't embellish or add any special effects to the newsletter, but I made sure that all of the components actually worked so the audience could engage and investigate as if it were the finished product.

Once I created my prototype it was time to test it. The "test" mode allows you to have a "chance to get feedback on your solutions, refine solutions to make them better, and continue to learn about your users"(Plattner, 2016, pp. 5). I was most excited for this mode, because my Problem of Practice really is a problem in my community of practice and I wanted to put this program or some sort of program into action. In order to gain the most out of your testing, you need to get feedback. So, I created a Google poll and sent it out to my users 2 weeks after they received my digital newsletter. I also did individual interviews to have the users clarify or expand on certain feedback points that they gave me in the Google poll. After collecting and analysing the feedback from my users I was able to see what was working with my prototype and what needed improving.

I was encouraged to find that all of the faculty felt that the monthly digital newsletter in conjunction with the opportunity to attend a follow up meeting about the new technologies would be helpful to enhance their ability and desire to integrate technologies into their courses. This was, of course, the most exciting feedback that I received. The users also stated that they appreciated the information being sent directly to them instead of having to seek out new technologies on their own, which was a goal of mine. I was glad that I decided to include the fictitious support meeting sign-up in the newsletter because the faculty all felt that the follow up



meeting would be imperative for them to gain the comfort level needed to utilize the technologies in any of their courses. There were a few formatting issues reported, but I could easily address them and improve the usability of the program, and overall I felt that the “test” mode provided the most useful information.

Through this experience I can see how testing your ideas and concepts throughout the design process would help you tweak and focus your design to better fit your audience. In regards to teaching, I realize now that I should be testing my designs and/or their components much sooner and more frequently in the design process. The students are the ones who suffer if this testing doesn't occur until class time. Testing, gathering feedback and revamping or re-designing should happen continuously in order to ensure that you are successfully designing for your intended audience. I am proud to state that this professional development program, that I designed for this course, has been adopted by my faculty and is scheduled to occur regularly within my community of practice!

As an educator, I feel like I am constantly hoping that my courses or assignment designs are going to be successful. After embarking on The Stanford Design Thinking Model challenge that was set before us in this course, I feel like I have a much better grasp on the steps or the actions that I need to be taking in order to design successfully for my students. The user friendly framework provided by The Stanford Design Thinking Model allows for a less daunting and more assured design process. I feel like I can move forward from this course with a clear plan in place for any future course design.

References:

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