Pallavi Pallerla

Mr. Speice

Independent Study Mentorship 3A

13 April 2018

**Mentor Visit Assessment #3**

**Mentor:** Jason Ballengee

**Profession:** Associate Principal Engineer

**Location:** Pepsico R&D, 5340 Legacy Dr #100, Plano, TX, 75024

**Date:** March 2 & April 6,2018

**Time:** 3:00 PM & 1:00 PM

**Assessment:**

The two most recent mentor visits with Dr. Ballengee were very productive in the progression of my Final Product. During these visits, I was able to progress from the research stage to my design stage.

Coming into the first visit on March 29th, I already finished the research for my Nepal Problem Statement Chart. During the visit, Dr. Ballengee showed me a new way to analyze the information I collected. The method we used was the Weighted Decision Table. This table helped me organize my thoughts because I was able to rank each water filtration method in regards to key points important to keep in mind that are involved in the water filter system. Creating a Weighted Table Decision was an eye-opening experience for me. One thing I love doing is staying organized. When an individual is making a decision, he or she ways out the pros and cons in his or her head first. When I was deciding which filtration method would be the best applicable in Nepal, I ranked all my rows and columns and ended up selecting Solar as shown in my mentor visit notes. This practice was beneficial to me because I was able to show what I was thinking through the chart while being organized. I knew from that moment that I will use this method again in the near future when choosing between two or more items. At the end of the visit, Dr. Ballengee reviewed the plan I had created in my Product Calendar for my Final Product. We noticed we were right on track and started to plan for the next visit. This was helpful because it allowed me to decide what to focus the upcoming week on to be prepared for the next visit on April 6th.

On April 6th, Dr. Ballengee and I took the improved models of the SODIS method that I planned out over the week and created a PowerPoint slide listing all the potential improvements that we thought were beneficial to the filter design. After the completion of the slide, we choose the most suitable one for Nepal and drew a few sketches in relativity to a village in Kathmandu Valley. I noticed while drawing out these sketches that it would be a bit difficult for my end users to implement all features for their water treatment. From there, Dr. Ballengee and I decided to first show the base model and then elaborate on features that would be preferable if circumstances allow. I decided that I will include this filtration model at Final Presentation Night to show my guests, but, in addition, I wanted to elaborate on my Final Product idea. During one of my mentor visits, Dr. Ballengee showed me a presentation he had to explain the purpose of a problem statement to me and its importance when you are trying to market your product. For there, I got the idea to create a marketing presentation to show the advantages of my product. This extension to my Final Product will push me into the field of marketing, a topic a chemical engineer might work with.

Thus far, I am satisfied with the progress I have made on my Final Product. I believe as long as I continue to push myself, I will be able to accomplish my goal of designing an improved water filter for Nepal.