Water Quality vs Standard Methods

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When I initially heard about the Student Engagement Fund I was super excited at the idea of being able to work in a lab and have the freedom to design and run a project with an experienced faculty member. I eagerly applied and was lucky enough to be accepted and began working with my mentor Dr.Shibata on the project.

Over the course of this semester a lot of work has gotten done but the global pandemic made the lab portion of my experience not possible to complete. The initial plan was to test water samples that contain mercury, store them in different conditions, and re-test to see how their storage conditions altered the total detected mercury levels. We were also interested in seeing how well various instruments worked at detecting those mercury samples at varying conditions and concentrations. This was important to me because the standard methods for testing for most chemicals is not available to the average person where cheaper handheld devices are usually available. If the cheaper handheld devices do not give reliable results than that data should be available. Sadly, we did not get to do that aspect of the experiment. So, most of the work being done was prepping for the experiment. This preparatory work included finding out who primarily worked on certain instruments, creating data tables, learning about equipment purchasing, and consulting additional faculty when there were questions I could not answer. Preparatory work and literature reviews are very important steps when creating and executing a research project.

The SEF award gave me the opportunity to learn a lot about the research process and how formation of a project starts. This experience was very beneficial to me and will help me in the future with careers if am able to work in a research type setting. It could also be helpful if I am

able to go back to school in the future. Having direct access to a mentor who could answer a lot of my questions and could help guide the process along was also very beneficial. It took a process that was very foreign and made it very easy. I also learned a lot about literature review thanks to my mentor. This is a skill I plan on maintaining and using for work and any academic activities in the future.

The skills that I learned during this SEF project I was able to apply to another project that I had worked on over the summer. The data I collected was presented at the undergraduate research fair. Without that experience from my mentor and the SEF reward that would not have been possible.