

I'd like to think that I've been a researcher making valuable use of library resources since I was about 8 years old. Even though I didn't know it at the time, I was developing what has become one of my favorite research methods. Back then, I would use one of the computers available at my local library and type a keyword in the library's search engine—this was usually my favorite word of the day, like “horse.” I wouldn't select any particular book from the long list of results, but would instead go to the section that would show up most in the search results. I'd then go to that section to look at every book until I found something fascinating to read. When I'd have extra time—which as a kid, I had plenty—I'd also look at the neighboring sections which always offered an unexpected treat.

This is something I still do today and, in fact, I used this method for the research paper I submitted. I went to the section where most of the chlorine-related books were listed and started to look through all the books. I was actually surprised how few chlorine-focused books I came across. Fortunately, I found quite a few books that were related to my research topic in the neighboring sections. Needless to say, I went home with almost more books than I could carry. Going to the library to see what book I might bump into is only a small part of my research method though.

As a parent, I don't have as much time to go to the library as I'd like to and have to rely heavily on the online research tools available. Fortunately, the online tools are user-friendly and provide an enormous amount of data. Through the library's online search engines I never had a hard time finding information. In fact, the problem felt more like finding too much information, so I had to be very resourceful with how I used my time.

Thankfully, at the community college where I transferred from, I learned to manipulate the search engines in a way that would get me close to the results I was looking for. The librarians at Shields library helped me further refine my research skills by walking me through amazing features like the advanced search engine.

I learned to use different search terms to get better results. For example, since there are a lot of words used to describe chlorine, I needed to expand my search to encompass those words too. I found that there were words like “sodium hypochlorite,” “chlorine-based bleach,” “bleach,” and so many more that would each give very different results. I would then pair these “chlorine” words with other words or groups of words like “indoor pollution,” “occupational,” and “carcinogen,” that would effectively produce meaningful search results.

Once I found an article that was relevant, I would then explore the article overview for clues that would lead me to my next article. I would usually find this in the form of links listed under related subjects. This was especially helpful since it’s easy to overlook keywords that might be an essential part of the research.

I also learned how to use subject guides that would take me to subject specific databases I never knew existed. A database I used quite often was the Education Resources Information Center (ERIC). This unique database has a thesaurus feature that’s meant to narrow search results with descriptors, a feature similar to “related subject” links. Using the descriptors will give results related to that descriptor even if that particular word isn’t included in the title or abstract. Also helpful, is the descriptor’s page which contains valuable information like a scope note that explains the term and links to other related terms.

The librarians at Shields library also made me aware of other things to look out for like how many times an article had been referenced and whether an article was peer-reviewed or not. Finding out if an article had a sponsor was also something I learned to watch out. A sponsor could introduce a bias that might influence the research. I wouldn't necessarily exclude sponsored articles, but it was something that I took into account when deciding whether or not to use an article.

The endless amounts of information can feel both exciting and overwhelming. Because of time constraints it's impossible to read every interesting thing that came up from my search. So, for every article I thought was relevant, I would read the abstract to first see if it made sense to spend more time with the article. If the answer was yes, I wouldn't read the article, but would instead go straight to the conclusion. From there, if it was still relevant, I would save the article using Zotero to skim through later. At this point, I sometimes looked at the resources referenced to see if there was a source I might want to check out. It's all about following the clues. In addition to feeling like a real researcher, I also felt like a detective. It was thrilling.

This research project is especially important to me since my relationship with chlorine is very personal. A few years ago, I experienced a job-related chlorine accident. Fortunately, I came out of it without any major injuries, but it left a significant impact on me. After that incident, I knew I wanted to do something about the experience. My mom also worked with chlorine on a daily basis, so I felt a strong sense of urgency to do something. Shortly after the incident, in 2018, I decided I would create a self portrait out of chlorine. My drawing teacher at the time, Brian Tucker, told me that I should continue exploring the experience. At the time, I never realized I would take

it up as a research project at this incredible university. I've been so lucky to have transferred here and now have Professor Jesse Drew as my research advisor through the McNair Scholar Program.

The greatest gift that Professor Drew has given me is showing me that I have within myself an endless capacity of critical thinking. He first introduced this idea of "consciousness" with Paulo Freire's *Pedagogy of the Oppressed*. Since then he has thrown other philosophers and great thinkers my way. I have a hard time pronouncing most of their names, but these great minds, along with the library and Professor Drew, have all been a guiding light in my research.