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Reflective Essay

As a Public Health Science major, I have always had an interest in how everyday household chemicals could negatively affect the public's health and the surrounding environment. In particular, chemicals in which the public lacked common knowledge had an additional enticing factor. I was able to pursue this curiosity in more specificity when Dr. Payne-Sturges assigned a persuasive research paper for her MIEH300 course. The assignment required me to choose an article about a chemical that had an environmental and public health effect from the news source "Above the News Fold". After my initial search, I chose to do my persuasive paper on endocrine disruptors due to the public's lack of education surrounding the issue and their various detrimental health effects. This eventually led to the creation of my persuasive paper entitled: *Endocrine Disruptors and Polybrominated Diphenyl Ethers in the United States: An Environmental, Health, and Financial Crisis.*

My extensive research utilized several techniques and search engines, including the substantial use of the University of Maryland's Library resources. In order to teach and reiterate the importance and proper use of the library resources before the persuasive paper, Dr. Payne-Sturges assigned every student to complete a course activity module which included various exercises. This activity module, "Health Sciences Library Resources Canvas Course", served as a beneficial starting point.

I began the actual research process the same way I begin almost all of my scientific based research projects: with a general Google search for academic/peer-reviewed articles and journals relating to my topic. Since this was a science related assignment requiring proper APA style, I mainly searched for sources which had credibility in the scientific community, whether this be peer reviewed articles, scientific published journals or .gov and .edu web extension. For this paper in particular, a substantial portion of my data came from the United States Environmental Protection Agency's website.

In order to find credible scientific data, I first utilized the Google search engine and typed in my topic or key phrase, in this case endocrine disruptors, with the words "journal" or "journal article" after. This generally produces several useful results from accredited sources. Then I went specifically to Google Scholars to eliminate any non-academic sources. The issue with this method is that a numerous amount of the articles are locked to account holders that can be costly to access. Since this was my first semester at the University of Maryland, I was able to use UMD's extensive online library's databases to access and read these previously locked sources. Once I found a proper source that was locked, I logged onto UMD's online library and searched for the article via name or digital object identifier (doi) and almost without fail I was able to access the article. Without the access to UMD's library's databases I would not have been able to collect all the critical data I eventually used to make a strong persuasive argument.

One important factor to regard when doing research is to learn how to make more precise and determinant searches so that the sources you investigate are more applicable to your research assignment. Simply typing your topic or key phrase into a large search engine like Google

Scholars will produce a plethora of beneficial results; however, it can be overwhelming and be time consuming to weed out the data that is not pertinent to your argument. At this point, UMD's library services can further speed up and provide additional aide. I used the library's multiple search methods and techniques to further specify my inquiries. After searching my topic phrase into the "Libraries Worldwide" search engine I check off the peer-reviewed box so that I know I am reading credible information. One new technique I learned in the activity module was the use of Boolean operators. Using the Boolean operators, "and" "or" "not" I was able to further fine tune my research.

For this assignment I did not seek any additional help because the Library Resource user interface is fairly straightforward and usable even for a new user. Further the earlier activity module, created by Nedelina Tchangalova, gave me enough base information to successfully and efficiently research my topic.

Personally, I believe the most important part of writing a research paper is not only the writing practice it provides you, but also the peripheral information you learn from the academic resources. It is always interesting and beneficial to learn new information and see scientific research in the form of statistical data. Since I have done this research process countless amounts of time before this, I would say that each time I become faster and more efficient at understanding and choosing research articles. The research process is valuable in my desired career in the field of science because I know I will have to write numerous research papers in the future, whether it be for publication or education. With continuous practice in the research process comes increased efficiency and a skill that will be important for the rest of my life as a member of the scientific community.

Something I would have changed in my research process would be to use the Boolean operators and other fine tuning methods earlier, as this would have saved time from reading through various articles that dealt with my subject but were not applicable to my research objective. While the University of Maryland's library services were extremely helpful, one idea they could implement could be an algorithm that provides pop up tips or guides if a user continuously searches a topic multiple times over a short span of time. If I had not taken the activity module for my MIEH300 course, I may have never learned how to fine tune my searches, which could lead to endless attempts to find specific data. If there was a system that provided pop up tips, such as a tip to utilize the Boolean operators, then students and others would not have to take these modules courses before using the library's expansive databases.