

Undergraduate Library Research Award

Reflection Essay

My research began in the cognitive motor neuroscience laboratory in the School of Public Health here at UMD. Over the last three years, I have been working on projects that examine the effects of exercise on brain health. When I was assigned a literature review in English 395, Writing for Health Professions, I was faced with a challenge. I wondered: How thorough is my understanding of the effects of exercise on brain function? During peer editing class periods and conversations and meetings with my professor, Dr. James Goodwin, I discovered I needed to narrow my topic. I wanted to focus on exercise, and examine areas of brain health associated with neurodegenerative diseases, memory, and motor function, but this topic was still too broad. It was only after a workshop at McKeldin Library that I decided to choose acute exercise, cutting out a large body of research on long-term interventions. Once my topic was decided, the daunting portion of my project began: finding and examining sources, and then eventually composing the literature review.

The UMD Library website has been incredibly helpful in locating full-text, peer-reviewed scientific journal articles. I began at Research Port with broad topics to narrow down which databases to use. When searching for articles on the acute effects of exercise on cognitive and executive brain function, I found success with JSTOR. Here I found fewer articles related to the neuroscience aspect of my project, and needed less of the broad, kinesiological-type articles. I supplemented my basic searches with the heavier, science-weighted databases: Science Direct and Academic Search Premier. Science Direct proved to have a wide variety of technical sources from the effects of exercise on neurogenesis and angiogenesis, all the way to papers on preventive treatments for neurodegenerative decline. I was able to download directly many full text journal articles directly from the UMD intranet. Science Direct was particularly useful

because this database saved all of my searches, the history of articles I had read, and pulled suggested/related articles based on my search history.

As I was just beginning my literature search, Dr. Goodwin suggested I consult the libraries or the writing center for extra assistance. The UMD Library's Calendar of Events included "How to Write a Literature Review" workshop held at McKeldin Library, and immediately signed up. At this workshop, guest lecturers and several UMD librarians guided me on just how to perform a literature search, how to separate the good articles from the unnecessary or irrelevant ones, and how to incorporate all of my research into my writing. For example, I had many papers on the effects of exercise on brain function. What I learned was to classify exercise interventions as acute and chronic. Though I found many great chronic interventions on promoting brain function, I still could not use them as my focus was on acute bouts of exercise. In ENGL 395, my class learned the structure of a good literature review. In this library seminar, the other motivated literature review writers and I were supplied with excellent examples and an interactive introduction, conclusion, and advice on how to generate a great purpose in each of our papers. With my attendance at this library seminar, I feel as though I had quite a leg up on my peers, who likely did not receive the extra quality resources that I did outside of our quality English class instruction. My success on this project contributed to the A I earned in ENGL395.

In addition to the written and oral instruction from this seminar, I was introduced to a tool that I will likely use for the rest of my academic and professional career. An application, Zotero, was demonstrated during this library seminar, and it has made my literature review creation and writing process substantially easier. This application not only connects directly to Google Chrome (my preferred browser) and allows a single-click download directly to my Zotero "Literature Review" folder, but also immediately extracts the abstract, title, and authors. A feature in the application has a note section, directly linked to the PDF document that assisted me

greatly in evaluating and organizing my literature review documents. I was able to take quick and easy notes that I could review with a simple drop-down menu click, and sort through which document belonged in which section of my paper and why. For example, I was able to sort my documents by the labels: neurodegenerative diseases, cognitive and executive function, motor function, and memory and learning. Also, I connected Zotero to my Microsoft Word, which applies, as I finish a sentence, an in-text citation as well as the addition to the MLA bibliography at the end of my paper.

As I move on in my academic career, which will eventually lead to a PhD or MD program (likely focusing in endocrinology, cardiology, neuroscience, or exercise science), I will keep in mind something that I learned through this process: I will encounter many difficult assignments and tasks, but it is imperative that I take advantage of all of the resources available to me. Beyond emailing and meeting with my English professor outside of class, I spent hours in McKeldin, Hornbake, and the Chemistry Library utilizing these excellent library databases. I signed up for and attended a free session for exactly what I needed to know and do to write a literature review. These resources helped me feel confident in my researching and writing skills, provided feedback and encouragement, and facilitated my discovery of a novel and amazing tool. I have learned not to hesitate to use all that is available, whether I am familiar or not with it, and have realized that the library and its resources are meant for student success.