

Reflective Essay

I wrote “Surviving the Cold: How Circumpolar Peoples Have Adapted to the Extreme Conditions of the Arctic” as my research paper for ENT 199, a two-quarter course that spanned from Fall 2021 to Winter 2022. The purpose of this assignment was to synthesize the current literature on human hibernation by tailoring it towards a topic of Professor James Carey’s choosing, which also matched my academic background and research interests. In the process, it aimed to improve my ability to research as well as refine my writing and technical skills to create a unique paper that approached human hibernation from a new perspective. For this paper, I incorporated 35 references with an equal mixture of primary and secondary sources. Luckily, I had previous experience writing research papers for my upper division English class, so I knew what to expect in terms of outlining and combing through different databases; however, I still had my doubts. I never wrote anything beyond ten references, so I knew this was going to test my organizational skills as well as my ability to integrate a lot of diverse information from different sources. In the end, this became one of my most rewarding experiences at UC Davis, and I gained an increased confidence in myself as a writer and a secondary researcher.

The process of writing this paper was extremely unique because there was not a lot of structured discussion or a step-by-step walkthrough. For most of the time, I was allowed to go at my own pace and write whenever my schedule allowed it. This was very different from the rigorous deadlines that I had to meet in the past. Nonetheless, Professor Carey helped ease my discomfort by setting loose deadlines and acting as a guide and resource during the course of the project.

Initially, when I signed on to write the research paper, my topic was: the biology, psychology and behavior of long-term isolation and separation with respect to human

hibernation. While this was supposed to be the subject of my paper, Professor Carey continually changed it to better match my background as well as his personal goals for the Human Hibernation Project; consequently, my topic changed many times from looking at cold adaptations in Neanderthals to finally, examining cold adaptations in circumpolar peoples as a whole.

Throughout the process of trying to establish the foundation of my paper, I had to do a lot of background research to become more familiar with the scope of my topic and figure out a direction that I wanted to approach the assignment. I utilized Wikipedia and magazines like *National Geographic* to develop a baseline understanding of the Arctic region and its inherent biodiversity. Later, I even went back to Wikipedia's reference pages to sift through other scholarly works that I could incorporate into my paper. Wikipedia, specifically, was a great resource to dive into the material and current literature without sinking into the deep end and becoming too overwhelmed.

While it proved useful, Wikipedia was very limited in the topics that it could produce info on. For example, info on the Arctic region focusing on its people, biodiversity, and seasons were easily accessible, but more specific info related to cold adaptations were a lot harder to find or simply did not exist. Consequently, I had to rely on my previous experience performing secondary research to find relevant sources. I utilized UC Davis Subject Guides to find databases like *ProQuest* and *Web of Science*, which allowed me to expand my search and touch upon those harder to find topics. Professor Carey even directed me towards Google Scholar, which was also another super helpful resource since it procured so many scholarly articles from a multitude of different journals. Using Google Scholar and *Wikipedia*, I was able to effectively introduce myself to the topic and develop a preliminary outline of my research paper with potential

headings and subheadings. Additionally, after seeing the wealth of literature available on cold adaptations, I decided to narrow my topic to focus solely on how human hibernation could act as an alternative adaptation for circumpolar people to survive the cold. I communicated this newfound interest to Professor Carey who obliged despite initially advocating for a paper focused on winter season metabolic depression in circumpolar populations.

After narrowing down my topic and doing preliminary research, I had to begin finding sources that I could incorporate into my paper. At this stage Google Scholar became my best friend. With its easy to navigate database and advanced search tools, I was able to find papers that were recent and tied into the general topic I was trying to address. For my acquisition strategy, I focused on using keywords and boolean operators like “and.” In the beginning, my searches were very broad like “cold adaptations and circumpolar people,” which made it very difficult to find works that matched exactly what I needed. Overtime, as I developed a better understanding of my topic by reading through literature reviews and excellent papers that came up in those initial broad searches, I was able to refine my keywords and go from searching “cold adaptations” in general to searching more specific “brown adipose tissue and the cold” or “Arctic populations and basal metabolic rates.”

During this process, I tried to find papers that were within the last 10-15 years, but I also extended beyond this time frame going as far back as 1995 since many of the older articles provided great insight into the layout and divisions of the Arctic. More importantly, some even touched upon specific cold adaptations that remain relevant to this day.

With a long list of potential sources, I began going through each one and taking bullet pointed notes in a google doc. Although this was a very lengthy process, it helped me take stock of all the info I acquired and what I could potentially use for each section of my paper. Since

many of the sources addressed multiple facets of my paper and could be included in different sections. I highlighted my notes to color coordinate where each part of an article could be incorporated in. For example, when I took notes on the 2020 Arctic Biodiversity Assessment, I made multiple highlights indicating that it could be used to define the Arctic, introduce the seasons of the Arctic, and provide insight to certain cultural adaptations that circumpolar populations exhibited. While I did not use that source for each of those sections in my paper, highlighting different parts of my notes, as well as the paper itself, allowed me to strategically identify where a potential source could be placed within my own paper. This method was extremely helpful since it allowed me stay organized especially when I began writing and dealing with at least 50 sources—35 of which I actually incorporated into my paper.

After doing this research process for all of Fall 2021, I began to write and eventually finished my paper during Winter 2022. Looking back, the method that I employed the most when looking for sources was the use of specific keywords. This method was vital in my quest to obtain relevant sources. Additionally, I evaluated sources based on their recency and credibility. I tried my best to find articles that were relatively current, so I could get the most up-to-date research and make my paper as applicable to the present as possible. Moreover, I actively looked for sources published in peer-reviewed journals since I knew from previous experience that those sources tend to be supported by a larger community of scientists and professionals. Looking into the backgrounds of the authors also ensured that my sources were credible and accurate. For instance, if the authors were considered experts in their respective fields, I would make note of that as I decided which sources to incorporate into my paper.

Throughout this whole process, I improved a lot on my ability to research, and I also refined my writing and technical skills. Moreover, I gained a greater appreciation for scientific

writing and the work that comes with it. Not only do researchers have to create something new from the existing literature, but they also must be prepared to spend hours sifting through scholarship to find works they can incorporate into their own papers. While this assignment felt daunting at first because of the large scope as well as the decrease in structure, it was one of my most rewarding experiences here at UC Davis. I learned how to effectively stay organized and hold myself accountable without impending deadlines. In the end, I was able to create a scholarly work with 35 sources that approached the topic of human hibernation in a novel perspective. All in all, I gained an understanding of the whole writing process that comes with creating a research paper and I now have a newfound appreciation for scientific writing. I am definitely more confident in my ability to perform secondary research on a large scale, and I know I will continue to employ these skills as I continue my academic journey at UC Davis and beyond.

Maybe mention technical skills somewhere.