

Research Reflection

For my research project, I was interested in determining the magnitude and characteristics of the proficiency gap in writing between student and practitioner writers in the field of biology. I hoped to get a better understanding of the uncertainty and deficiencies that undergraduate biology majors might experience when communicating their research and scientific ideas in the future. I was excited to speak to faculty members of the Departments of Molecular and Cell Biology and Integrative Biology and learn from their past experiences.

Although the process of acquiring and analyzing data as a whole was fulfilling, one of the most difficult parts of the journey was formulating questions and interpreting the data of the two online surveys I conducted. Each survey had different aims and methodology. The student survey was mainly used to obtain objective, statistical data. I needed to learn how to use statistics such as the range, median, standard deviation, and variance to interpret my claims. The faculty survey had an entirely different approach and required me to identify patterns and trends within self-reported qualitative data from an interview and written responses of faculty members. It was difficult to work with broad, speculative results, but I was interested in seeing how future studies focusing on specific areas could improve and further my research.

I am especially proud that I was able to support my claims with a wide range of data. I thought the process of synthesizing all types of information, both quantitative and qualitative, was arduous, but I am happy to find that I am now less intimidated by the task. As a result of this project, I would like to learn better ways in forming survey questions to avoid bias and confusion emanating from the participants. I would also like to be proficient with a higher level of statistics so I could more easily identify trends in my data.

I learned that research is a fluid process and I often had to adapt my research to unexpected results and findings. I was most surprised to learn that although my research brought new insights, it also sparked further questions that needed to be answered. I had to accept that there are no simple and definite answers to elusive, unresolved research questions. I discovered that research is often additive and collaborative. I was excited to study and propose ways in which the writing for UC Berkeley students can become more effective and efficient.